

American Aviation



25c

The News Magazine of Air Transportation

Nov. 1, 1947

Dear Dave

(Memo to Dave Behncke, president of the Air Line Pilots Association, regarding the recent 18-day strike of pilots on American Overseas Airlines.)

WELL, DAVE, ol' boy, you've gone and done it again. Congratulations. Last year you sure told off TWA, and this year you've showed that AOA gang who was boss. There's nothing like a fast strike to show cockeyed management who's who.

W. W. P.

There's no use being a labor boss unless you can be tough about it. No use compromising your position now that you're sittin' on top.

Just call the shots one-two-three and let 'em know who's boss. That's what counts. No messing around, just a clean-cut order. Old John L. and Petrillo can't do any better. You're right up in good company, Dave.

Of course, you're called all sorts of things by management, but what do you care? They can't hurt you with words and you've got 'em by the throat anyhow. Let 'em scream. Truth is, Dave, a lot of folks are envious of that power you have. It must be a grand ol' feelin' to be in a spot where you can shut down a whole airline within a few hours. Just call the shot, keep away from the telephone, and let 'em squirm. That's the way to show who's boss.

You know, Dave, we got a big kick out of those cables which those employes on the other side sent to you. Sort of begging you to put your men back to work so these small-fry mechanics and traffic people wouldn't lose their jobs. It was a panic. Those poor jerks don't know what cooks and it's time they learned. They probably thought all labor people stick together, but they'll catch on. You're smart, Dave. You can't be a big power in your own outfit and have to think about a lot of other workers for the company, too. We don't have to remind you that you have to be cold blooded at times. Else people won't know who's boss. You're right on the beam, ol' boy.

Funny thing how people can get so upset over a strike. You use the right tactics. Just confuse 'em, just confuse 'em to beat hell. No use botherin' to tell anybody *why* you're striking, the main thing is they've got to toe the line or else. It was a panic how you knocked this AOA management for a loop!

(Turn to page 8)



Man of the Hour in IATA

Gordon R. McGregor, 46, general traffic manager for Trans-Canada Air Lines, who was chairman of the joint traffic conference of International Air Transport Association in Brazil a few weeks ago. Frank-speaking, action-minded McGregor became world-renowned overnight when he succeeded in obtaining harmonious action on all traffic problems on the agenda—an achievement previously believed impossible. (Story on Page 13)

In This Issue

**IATA Achievements at Rio
Of Major Import 13**

**Airline Cargo Volume Seen
Increasing Facilities 15**

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MANAGEMENT

SALES

OPERATIONS

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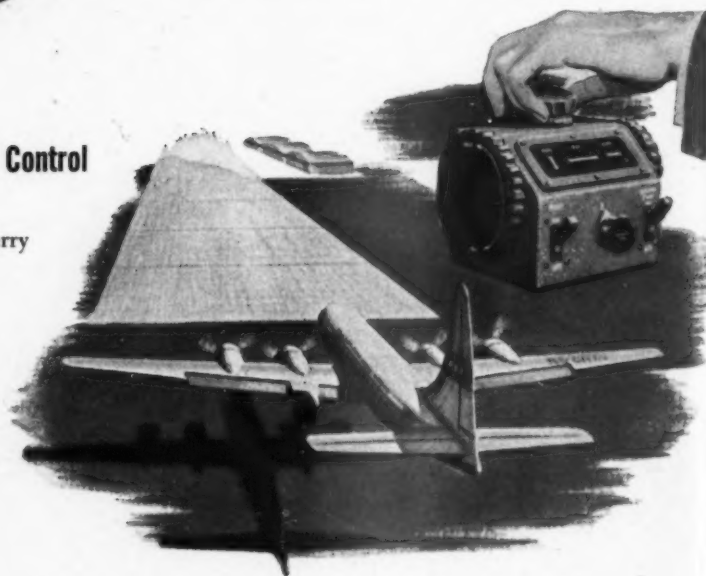
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—FORTNIGHTLY REVIEW—

* * * *

The recent IATA meeting at Rio de Janeiro achieved results of major importance to airlines of the world. Represented were 69 airlines from 42 countries, flying aggregate of 550,000 route miles. (Page 13)

The domestic scheduled airlines are now in position to compete in same market with rail express, but are finding their cargo facilities severely taxed to handle the volume generated by new low tariffs. (Page 15)

CAA is working on new procedure for establishing maximum initial overhaul and inspection time limits for new transport category aircraft. The plan would not apply to types now in service, but is expected to go into operation in time for the Convair Liner and Boeing Stratocruiser. (Page 23)

All-time high deficits and costs more than double prewar levels must be met with volume orders at early date to revive hard-hit aircraft manufacturing industry. (Page 31)

U. S. airlines are spending more money on passenger service than ever before, in their effort to make further gains in the highly competitive travel market. (Page 33)

Young Resigns from CAB

Resignation of Clarence M. Young as a member of the Civil Aeronautics Board was accepted by President Truman on Oct. 14. Originally appointed to CAB in February, 1946, Young filled out the uncompleted term of Dr. Edward P. Warner and was reappointed for a full six-year term beginning Jan. 1, 1947. His resignation was submitted to the President Aug. 11. Choice of a successor appears to rest among several Southern Californians, but at presstime there was no reliable indication of the selection. Young becomes general manager of the Los Angeles Department of Airports, (forecast in AMERICAN AVIATION, Sept. 15) at salary of \$16,500 a year. This does not affect status of Woodruff de Silva, manager of the L. A. Airport and a civil service employee. Los Angeles, meanwhile, is negotiating to acquire Metropolitan Airport at Van Nuys.

House Committee Studies Air Mail Costs

Rep. Edward H. Rees (R., Kans.), chairman of the House Post Office and Civil Service Committee, has named a subcommittee to study air mail costs, alleged subsidies, and air mail postage rates. Rees named himself chairman of the subcommittee. Announcing the investigation, Rees said that the group would consider: (1) A Post Office loss of \$14,459,469 in handling air mail during fiscal year ending last June 30; (2) Increased burden to the PO in "subsidizing" the airlines. Rees pointed out that the PO prediction that air mail volume would double under the 5c rate has not materialized, although this rate has been in effect over a year.

2,000 Non-Scheduled Operators

Some 2,006 firms, operating 4,439 planes and employing 8,488 pilots, were certificated by Oct. 1 under Part 42 of Civil Air Regulations for non-scheduled air carrier operations in the U. S. CAA reported that certificates for additional companies were being issued at rate of 200 a month. An incomplete CAA survey on industrial flying, as distinguished from non-scheduled air carrier operations, indicates that 188 firms are engaged in crop dusting, 84 in seeding from the air, 37 towing signs, 58 towing gliders, 19 taking aerial photographs, 51 patrolling power lines, 34 patrolling pipelines, 155 shooting coyotes, and 12 spraying to control mosquitoes.

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INDEX

Editorial	1	Thirty-Hour Check	25
Fortnightly Review	4	Safety Slants	29
Background and Trends ..	11	Financial	31
Aviation Calendar	16	Traffic and Sales	33
CAB Calendar	19	Index to Advertisers ...	37
Personnel	20	Wings of Yesterday	38
Airline Commentary ...	21	Booklets	38
Operations and Maintenance	23	Books	38
		Letters	38

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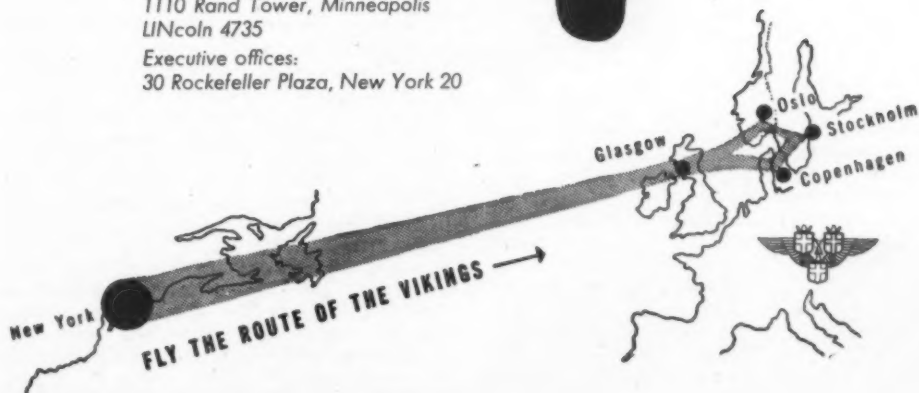
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FORTNIGHTLY REVIEW

(Continued from page 4)

CAA Finds Most Flying Instructional

Preliminary CAA report on aircraft use in 1946 shows that private and non-scheduled commercial aircraft flew 9,800,000 hours in continental U. S. during the year, more than five times the 1,934,000 revenue hours of all scheduled domestic airlines. Of the 9,800,000 hour total, 61% was instructional flying, 17% personal flying, 11% business flying, and 10% transportation for hire or other revenue-producing activity. An average of 183 hours was flown by all private aircraft in 1946.

Personal Plane Shipments Up Slightly

Eleven companies reported shipment of 961 personal aircraft in September, with total dollar value of \$3,659,000 at net billing price. Included were 438 three and four-place planes and 523 two-place craft. The September figure was 29 over August shipments of 932 valued at \$3,581,000.

Names in the News:

Lowell Swenson has resigned as executive v.p. of the National Aeronautic Association, effective Feb. 1, reportedly to accept a sales position with a western machinery company. His successor has not yet been named. . . . **Rear Adm. H. B. (Min) Miller**, USN, retired, former v.p.-public relations for TWA, has been appointed executive director of the Congressional Air Policy Board to succeed **Lt. Comdr. Langdon P. Marvin**, USNR, who resigned. One member of the Congressional Board stated that Marvin had not been able to work harmoniously with certain members. . . . **Dr. Sydney Goldstein**, noted British aerodynamics expert and chairman of the Aeronautical Research Council, Great Britain, has been selected to deliver the 11th annual Wright Brothers Lecture in Washington, Dec. 17, under auspices of the Institute of the Aeronautical Sciences. He will speak on "Low Drag and Suction Airfoils". . . . **William A. M. Burden**, former Assistant Secretary of Commerce for Air, is now associated with investment firm of Smith, Barney & Co., 14 Wall St., N. Y., as aviation specialist. . . . **Paul Aiken**, Macksville, Kan., attorney, has been named Second Assistant Postmaster General and will have charge of air mail. The position has been vacant since last January when Gael Sullivan resigned to become executive director of the Democratic National Committee. . . . **Thomas O. Hardin**, wartime commanding general of the India-China division of the Air Transport Command, has returned to the ATC with rank of colonel. He will direct ATC's program covering reserve training and cooperation with the airlines and air defense command.

Notes in the News:

Northrop Aircraft's YB-49, eight-jet Flying Wing, made its initial flight Oct. 21, taking off from Northrop field at 9:46 a.m. and landing at Muroc Air Base at 10:15 a.m. . . . **Boeing Aircraft** will retain the first B-50 bomber at its Seattle plant as a flying laboratory. It will be used in extensive flight test evaluation program for Air Force Air Materiel Command. . . . The first **Ryan-built** Navions have left the assembly line at the Ryan Aeronautical plant. . . . Military aircraft will continue to be most important part of **Consolidated Vultee's** manufacturing program, according to registration statement filed with SEC. As of Sept. 1, Convair held military contracts valued at \$294,013,000 (\$271,720,000 being for production of B-36 six-engined bomber and for transport version of same). . . . **Glenn L. Martin** has received Navy order for 12 additional Mariner amphibian planes, making total of 36 in production. . . . **National Aeronautic Association** has set following dates for meetings in Washington of its

three award committees: Robert J. Collier Trophy for notable achievement in aviation, Nov. 10; The Brewer Trophy for outstanding contributions to education of American youth in aviation, Nov. 3; The Haire Airport Trophies for outstanding achievement in airport development, management and operation, Nov. 7. . . . An **International Air Exposition** is planned to celebrate New York's Golden Jubilee and opening of the N. Y. International (Idlewild) Airport next July. The Port of New York Authority has agreed to underwrite \$100,000 of the cost.

International

Australian Air Fares Raised

A decision to increase air fares on all main traffic routes by 20% to about 4.7c per mile has been reached by a conference of Australian airline operators. Increase in freight tariffs is also under consideration. Even with 20% increase Australian fares will be among lowest in world.

U. S., Austria Sign Air Agreement

The United States and Austria have signed an interim air transport agreement, first of its kind signed by Austria since the war.

Pan Am's 20th Anniversary

Pan American Airways last week observed its 20th anniversary, its first flight having been made Oct. 28, 1927 between Key West, Fla., and Havana. It was a 90-mile route compared with the more than 100,000 route miles covered today. Pan Am has flown 540,311,000 miles during the two decades.

Sweden Studies U. S. Air Transportation

A forthcoming report on American air transportation methods by six representatives of the Civil Aviation Committee of the Swedish Parliament who visited this country last month is expected to figure largely in the proposed streamlining of Sweden's civil air operations. While in this country the committee inspected the Santa Monica plant of Douglas Aircraft Co., where 16 DC-6's are being built for the two Swedish airlines, ABA and SILA, soon to be merged. They were accompanied by Carl Florman, president of ABA, and other Swedish airline officials.

Britain First with Turbine Prop Planes

Confidence that Great Britain will be the first country to build and place in service airliners fitted with propeller-driving gas turbine engines has been reiterated by the Society of British Aircraft Constructors. "Trials which began in September, 1945, and now about to reach an intensive stage, have established the superior merits of the turbo-prop over the conventional piston engine for many classes of air transports, and there is little reason to doubt that the country which takes the lead in this new branch of aero-engineering will gain advantages which, properly exploited, might put it ahead of all rivals," SBAC said. The Airspeed Ambassador, de Havilland Dove, Handley Page Hermes, and Miles Marathon are some of the planes listed for change to gas turbines. First of the Bristol Brabazons, eight-engined 127-ton trans-Atlantic airliners, will have piston engines, the second and third gas turbines. Among the newer transports with gas turbines are the Armstrong Whitworth Apollo, Saunders-Roe SR/45, and Vickers-Armstrong Viscount. None of these types is likely to be on the airways before 1949 or 1950, but some prototypes may begin tests next year.



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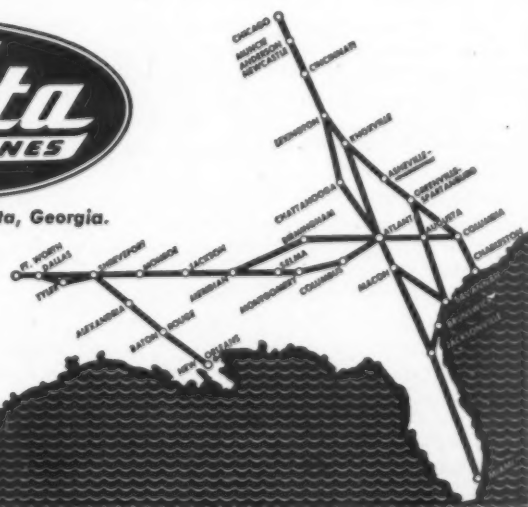
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Editorial

(Continued from page 1)

They couldn't even tell the press what the strike was all about! What a laugh that one was. You sure showed 'em, Dave, ol' boy. Management is a bunch of suckers anyhow, it serves 'em right not to know why you called out the boys. And was it messy on the other side. Man, oh man, those hundreds of people booked for space and they had to scramble around and try to get back by boat. They needed an ocean trip, anyway, or maybe they used foreign airlines, it makes no difference. It must have been fun to watch that confusion, but it's sure not your fault because these management birds have got to learn who's calling the shots.

We've been admiring you for a long time, Dave. Everybody has his or her own pet hobby and sport, but you've got a real one. Some folks like baseball and football or hunting and fishing. But there's lots better sports than that, as you've found out. You kill antelope or watch a World Series game, and that's the end of it. But pull a fast strike and watch that squeeze go on throughout a whole system, that's where there's real fun and deep-down satisfaction. Warm satisfaction. What a chance to pay off on grudges, too, the chance of a lifetime. There aren't many people who can achieve this power, Dave, and you've done very well with it.

And that ain't all. The way you handle these pilots is really a riot. They all think they're pretty good, and by God they are good—as pilots—but you sure dangle 'em on a string when you want action. They know how to fly airplanes and they're pretty good boys, but they ain't got time to worry about an organization. That's where you play it smart, Dave. You have your own little clique of introverts who write letters, and extroverts who can shout out the others at meetings. It isn't much trouble to work up anti-management sentiment if you go about it the right way, and you've done pretty well to date.

Not that you need any advice, but just keep on being stand-offish, take your time, don't compromise, stall and confuse, never come straight-out with the issue at stake, see that your henchmen are kept worked up at fever pitch, and by all means keep the opposition scattered. Then, pal, you're sittin' on top of the world. Just show 'em who's boss, that's all, and never get close enough to see the whites of their eyes.

You're a card, Dave, the way you lead these airlines around. It's really a riot how you force them into separate agreements while you sit in the center pulling the strings on the whole industry. Not even John L. was ever a better strategist.

There are just a few little things needing caution, however, but we're sure you've thought of them. Never carry a strike too far. Pull a fast walk-out, let financial losses bow the company down to the ground, but don't quite put the outfit out of business. The latter is going a bit too far, but you can really scare the pants off of 'em by making them fear you're going to close 'em down for good.

And be a little careful of your own boys, Dave, don't let them know too much about what's going on. Just get some blanket authorizations and keep the gang out of your home office, that is, all but your loyal gang of henchmen who are perpetually unhappy about something. Just as you keep management scattered, it's important to keep your membership scattered, too. It doesn't pay to tell them too much.

Then be sure to have some of the boys always lined up to write letters to anyone who criticizes you in the slightest. None of this "two sides to every question" business. Use the familiar old line of "tool of management," "subsidized by industry" and that old stuff. Tried and true. It usually works. (Emotion is much better than reasoning.) It's amazing what people fall for and you have some of your new boys right where you want them—on the end of the string.

Just never give a sucker an even break, Dave, and you're a cinch for the top of the heap. Of course, one of these days your own men will throw you out in the ash can, but then, life was ever thus and you've had a lot of fun in the meantime.

Customer Service

HOW NOT to make friends and keep them: A passenger on a scheduled airline recently had a series of "beefs" and proceeded to write them out on the self-addressed letter-envelope which all lines carry in the seats. He felt pretty worked up over the matter and thought he might help the airline straighten out its problems. He signed his name and address. In a few weeks he received a two-sentence penny-postcard from the airline which said, in effect, "Thanks for your comments." The printed card was the supreme let-down. Moral: if airlines invite criticisms, they must do more than send back routine postcards to passengers who sincerely try to write complaints.

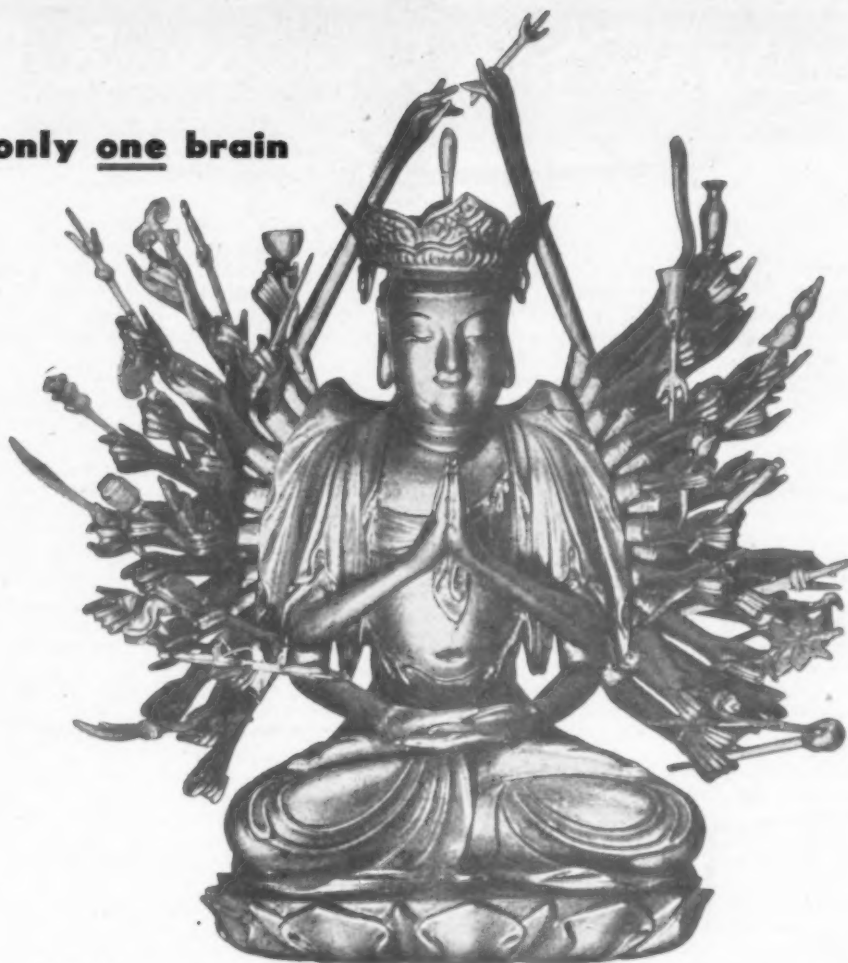
Old Nell and New Times

THE OTHER DAY a teamster in San Francisco asked a cop how to get his horse and wagon across San Francisco Bay to Oakland. The cop was stumped. A horse and wagon aren't allowed on the Bay bridge. They could cross on a ferry only if the horse was crated. To drive around the Bay involved 75 miles, or a good two days' driving. The only answer the cop could give was for the teamster to haul the horse across the bridge in a trailer. Can anything testify to changing times more than this? Not too long ago the horse was just about man's only source of transportation. Now the horse has to be transported by motor over busy traffic channels like the Bay bridge. The railroad, the motor car and now the airplane have altered the world's transportation perspective to an astounding degree.

WAYNE W. PARRISH

AMERICAN AVIATION

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AMERICAN AIRLINES

Background and Trends

(Significant Developments and Forecasts Based on the Fortnight's Top News)

Rough Time: CAA's airport program is scheduled for rough handling at the National Aviation Clinic in Springfield, Ill. this month. Current reports are that one policy bill will be introduced recommending the airport program be taken out of CAA and transferred to the Federal Works Administration. There is much open hostility to the program in many sections of the country, especially regarding handling of small airport projects.

CAB Streamlining: Industry reactions to proposals made by L. Welch Pogue, former CAB chairman, for changes in administrative set-up of CAB generally have been favorable, although there has been considerable disagreement as to whether the Board should be increased to seven members. Most airline officials interviewed felt higher salaries for Board members and authority to delegate more work to a better qualified staff might improve the volume and quality of the Board's output.

Labor Law: The airlines are pushing for redrafting of Railway Labor Act to bridge some of gaps in mediation procedures which some company officials feel have been contributing elements in two pilot strikes within a year. Under proposed amendments, National Mediation Board would be required to report threatening situation to the President, who would create an emergency board. After emergency board issues recommendations, NMB would be required to conduct secret vote among employees involved to determine whether they desire to accept or reject proposals.

State Voice: State aviation officials are demanding a greater voice in CAB route cases. Officials appearing before the President's Air Policy Commission recommended strongly that a state's position in a route proceeding affecting the state should be given more important place in the deliberations, even to the extent of a joint meeting with CAB. Such consultation, it was pointed out, might have resulted in better selection of airport points in some feeder awards.

Good Public Relations: Sentiment seems universal that one aviation publicity job is being handled extremely well. Ralph Cohen, director of public relations of International Air Transport Association, Montreal, is the recipient of the orchids. And another orchid should go to Paulo Einhorn, director of public relations for Panair do Brasil, who assisted Cohen at the IATA meetings in Rio recently. Einhorn is No. 1-p.r.o. in South America, bar none.

On: Final details of merger arrangements between U.S. Airlines and Willis Air Service should be forthcoming shortly. Under present plan, neither company would be absorbed into other, but final corporate result would reflect a combination of resources of the two systems.

Off: Proposed merger of California Eastern Airways and Slick Airways has been called off because of complications in registration of \$1,500,000 in Slick debentures with SEC. Some \$500,000 of debentures are unsold, and their disposition in event of merger would require new registration involving about three months to prepare.

Jet Transport: There are indications that Boeing Aircraft is seriously considering its XB-47 six-jet bomber as a prototype for a future commercial transport.

Predictions Off: Most early 1947 predictions on volume of passenger traffic this year are being proved too optimistic. Preliminary figures show passenger miles of domestic carriers through August to be up only 5% over last year. A four-year string was broken in June when for first time in 48 months passenger miles failed to exceed that of corresponding month of preceding year. July and August were also below 1946, but the trend swung upwards again in September. Mail ton miles through August were down 7% from 1946, express ton miles up 41%, and freight ton miles up 216%.

Third Class: Evidence to support the thesis that trans-Atlantic air travel is largely third-class transportation is being compiled by John Boddie, International Economic Division, Dept. of Commerce, Washington. Preliminary figures on survey being made on nature of steamship and trans-Atlantic airline passenger traffic show this revealing comparison: Aside from en route transportation costs, plane passengers have been spending between \$8 and \$11 per day while in Europe, third class steamship passengers \$7-\$10, while first class steamship travelers average \$26-\$34 daily. Plane and third class steamship passengers average about 60 days overseas, first class steamship travelers somewhat more. Each airline may obtain data on its own traffic from Boddie.

Cabotage Ends: As of Oct. 15, Venezuela terminated cabotage rights for Pan American Airways along the north coast route between Port of Spain, Trinidad, and Barranquilla, Colombia. One immediate result was replacement of a PAA DC-4 schedule with a DC-3, and the intensification of service by Pan Am's Venezuelan affiliate, Avensa. PAA will continue two daily DC-3 flights carrying only international passengers with stops at Maturin, Barcelona, Caracas, Coro and Maracaibo. PAA has been carrying internal traffic for many years.

Panair Buys Cats: Panair do Brasil has purchased five PBY-5A Catalina flying boats and is converting them for service on the Belem-Manaos-Iquitos and the Manaos-Porto Velho routes along the Amazon in Brazil. Douglas seats are being installed, blisters removed, sliding hatches built in, and clipper bows added. The Cats will operate thrice-weekly to Manaos. A small bulldozer has been acquired and will be dis-assembled for flying up the Amazon to be used in building runways at each stop. Within a few years Panair hopes to transfer to landplane operations exclusively. A DC-3 is currently operating twice weekly non-stop between Belem and Manaos, there being an airfield at the latter point. Panair recently received a five-year contract for airmail along the route, which was pioneered a dozen years ago by Pan American Airways.

Completed: Development of Northrop Aircraft's trimotor short-haul transport, Pioneer, is virtually completed. Cost of the project is estimated at \$781,000. There have already been some demonstrations in U.S., and plane will probably be shown in Central and South America this winter.

High Activity Prop: First installation of Hamilton Standard's newly developed high activity propeller for Douglas DC-6 will be on planes ordered by KLM. The 13-ft. paddle-bladed props will boost efficiency on take-off at top gross of 93,200 lbs. by 17%. This will chop 1,000 off the 6,000 feet of runway required for take-off at top gross. Hamilton Standard is also working on a 15-ft. high activity prop for the Constellation.



The "Mounties" have an Air Arm, too!

The Royal Canadian Mounted Police Force, world standard for efficiency in civilian protection since 1873, uses nearly every form of transportation known . . . including the airplane. Along with fine planes of Canadian manufacture, the "Mounties" are using Beechcraft twin-engine 18's because of their reliability, speed and cruising range in all kinds of weather.

Business can well borrow a leaf from the Mounties' book of experience. The Beechcraft twin-engine Executive Transport—equipped with every navigating facility and comfortable in the extreme—

is ideal company transportation for both regular and emergency use. It accommodates up to nine people, operates with notable economy, and can land and take off from relatively small fields.

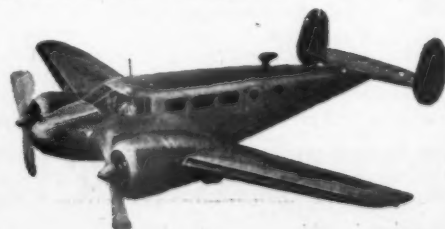
The hours—and fatigue—which the Beechcraft Executive Transport saves company officials and personnel make for an efficiency which is reckoned in dollars and cents by many of America's leading businesses. Your Beechcraft distributor is ready at any time to help you appraise your company's air transportation needs in the light of Beechcraft's wide experience in this field. Call on him.

Beech Aircraft

CORPORATION



WICHITA, KANSAS, U. S. A.



IATA Achieves Good Results at Rio

Meeting Most Successful Ever Held by International Lines; Hildred and McGregor Spark Effective Action

By WAYNE W. PARRISH

Rio de Janeiro, Brazil, Oct. 18—The most successful international airline meetings ever held came to a close here today with the final session of the International Air Transport Association's third general post-war meeting. Since early this month various IATA groups have been meeting in Rio and at the fabulous Quintandinha Hotel at nearby Petropolis.

Much was accomplished. And much that was accomplished affects every scheduled airline in the world.

Sixty-nine airlines from 42 countries, flying an aggregate of 550,000 route miles, were represented.

The productive results of the conferences, however, did not come spontaneously. Two men must be given full credit for sparking the meetings and getting results. One is Sir William Hildred, who, as director general of IATA spared no words in telling the traffic representatives that they had just one more chance to iron out their problems and who kept all sessions moving relentlessly. The other was Gordon R. McGregor, general traffic manager of Trans-Canada Air Lines, who was easily "the man of the hour" by his handling of the traffic meetings.

The centerpiece of the meetings was the general assembly of IATA which convened Oct. 14 and held forth for five days. But preceding the

general assembly were meetings of the three world-wide traffic conferences and a joint meeting of these conferences at which the bulk of the accomplishments was effected. In addition there were meetings of cost-analysis, legal and other committees as side-lines to the main show.

Selection of the Quintandinha Hotel at Petropolis for this year's meetings was not the happiest. The \$12,000,000 pile of cold stone was built for gambling, which is now prohibited in Brazil. It is situated in the mountains and somebody forgot to put in a heating system. A cloud settled on the hotel for a couple of weeks with the result that it was called "Overcast Castle." It was miserably cold—and expensive. But because visibility was zero and the drinks expensive, the airline boys probably worked harder together than they ever dreamed of doing—and they produced results.

Some meetings were held in Rio, which was not quite as cold but chilly enough to remove it from the tropics. Dr. J. Bento Ribeiro Dantas, president of the Brazilian airline, Cruzeiro do Sul, was president of the conference and general host. Pan American Airways and Panair do Brasil aided in arrangements.

The General Assembly accomplished the following:

1. Designated Brussels, Belgium,

as site of next meeting and elected Gilbert Perier, president of the administrative council of the Belgian airline, Sabena, as new president.

2. Tabled for at least one year the proposal to permit non-scheduled and contract operators to become members of IATA. Although the executive committee approved their inclusion, the motion at the Assembly did not receive a second.

3. Established arbitration procedures for settling disputes between members of IATA without recourse to lawsuits.

4. Voted measures to enforce the decisions of commissions already provided for to look into alleged breaches of IATA traffic conference obligations. Penalties include notification to all members of the commission's findings; fines; suspension for stipulated periods of the privilege of receiving bookings from other airlines through accredited IATA agents; and expulsion from the association.

5. Agreed to urge governments to sign and ratify a new international convention which the airlines asserted is necessary to define ownership rights in aircraft used on international services. The proposed agreement would define the rights of owners, mortgage-holders and others in equipment flying the flag of one country while it is involved in traffic in other countries.

6. Agreed to a budget of \$645,000 for 1948, a slight increase over 1947.

7. Voted to change the method of assessment for dues. New formula



IATA Directors—The Executive Committee of the International Air Transport Association (IATA) is shown above in session at Rio de Janeiro preceding the Third Annual General Meeting of the world airline organization last month. Left to right, they are John C. Cooper, legal adviser; Per A. Norlin, president, Swedish Intercontinental Airlines SILA; Sir William P. Hildred, director general of IATA; Paulo Sampaio, president, Panair do Brasil, and chairman of the meeting; Maj. J.

Ronald McGrindle, managing director (external affairs), British Overseas Airways Corp.; Harold M. Bixby, vice president, Pan American Airways; Dr. Albert Plesman, president-director, KLM Royal Dutch Airlines; and René Briand, deputy director general, Air France. Absent when picture was taken were John E. Slater, chairman of board of American Overseas Airlines; Dr. Hassan Sadek Pasha, president, Mitr Airlines; A. F. T. Cambridge, director, Indian National Airways; and Gen. T. H. Shen, China National Aviation Corp.

based upon the number of revenue ton-kilometers performed in international transport by each line. Minimum assessment is \$2,500 for associate members and maximum of \$56,500 for active members. Previous formula was based on all-up weight of aircraft fleets.

8. The Assembly formally recognized the jurisdiction of the Traffic Conferences over commissions for travel agents by rescinding a 1947 resolution which it passed on that subject.

9. Agreed to encourage the use of the services of the IATA Clearing House by a resolution abolishing a \$500 minimum fee for members. Charges for use of the Clearing House, which offsets interline accounts and reduces the risk and cost of foreign exchange dealings, will now consist of a small handling fee for each transaction.

There were a few important changes on the 12-man IATA executive committee. Croil Hunter, president of Northwest Airlines, was elected to the committee replacing T. B. Wilson, former TWA board chairman. John C. Leslie, v.p. of Pan American World Airways, was elected to replace Harold Bixby, who has resigned as a PAA vice president. Per A. Norlin, president of Swedish Intercontinental Airlines (SILA), and Rene Briend, deputy director general of Air France, were re-elected. All four of the above serve for three years.

To fill unexpired and shorter terms, Col. C. Y. Liu, president of China National Aviation Corp., and Major General C. J. Venter, president of South African Airways, were elected to replace respectively General T. H. Shen of CNAC and Dr. Hassen Sadek Pasha, of Misr Airlines.

Five new active members were admitted as follows: British Commonwealth Pacific Airlines, Central African Airways Corp., Aerovias Brasil, Aerlinte Eireann, and Cobeta, a Belgian company. A new associate

member is Lloyd Aereo Boliviano, of La Paz, Bolivia.

The following have resigned: TACA, S.A., Ethiopian Air Lines, Chicago & Southern Air Lines, and

Here's What the IATA Traffic Conferences Accomplished in Brazil

1. Agreed on standardization of passenger tickets, baggage checks and excess baggage tickets, which will eventually replace 100 or more existing forms of varying sizes and shapes.

2. Agreed to standardization of airline reservations procedures and methods to eliminate delay in booking space.

3. Established the first uniform, world-wide rate structure for international air transport. This includes 10% discount for round-trips; discounts of 90% for infants under two years of age and 50% for children between 2 and 12; round-trip excursion fares, at the carrier's discretion, of one and one-quarter times the one-way fare; round-trip discounts on the air portions of trips involving both surface and air transport.

4. Agreed to the practice of allowing stop-overs on through trip tickets; permit the same discounts for circle and open-jaw (irregular route) tickets as for round trips; validity of airline tickets set at one year on all routes except on short haul services where tickets will remain good for six months.

5. Free baggage allowances standardized at 30 kilos (66 lbs.) on international services with exception of short hauls in Europe where the gratis allowance will be 20 kilos (44 lbs.) and certain round-the-world flights which will have free allowance of 40 kilos (88 lbs.). Excess baggage charges will be a uniform one per cent of the one-way passenger fare per kilo (2.2 lbs.) with one minor exception.

6. Agreed on a standard commission fee of seven and one-half per cent for travel agents, with some exceptions.

7. Accepted a universal air travel credit plan, a combination of the features of the U. S. credit plan and the prewar European Bulk Travel Scheme. There will be four types of cards.

8. Accepted a new air waybill and consignment note, the first such world-wide uniform shipping document in any form of transport, thus assuring simplified movement of cargo anywhere in the world. Accepted a merger of existing classifications of air freight and air express into a single category of international air cargo and to allow reductions of 25% on all shipments over 100 pounds, anywhere in the world.

9. Standardized international airlines' dealings with agents for the sale of passenger and cargo transport through adoption of uniform agency resolution and standard form of agreement between individual lines and their own agents.

10. Agreed to uniform interline agreement covering transactions between the airlines themselves.

11. Approved a standard system for designation of international routes. Each airline assigned a two-letter designation and will, in turn, give each of its routes a three-number label. Flights south and west will be assigned odd numbers, while those to north and east will have even numbers.

12. Recommended, subject to government approval, an increase in the trans-Atlantic fare (from \$325 to \$350) for a six-month period March 1 to September 1, 1948. Other international rates to remain at existing levels.

KNILM, which has merged with KLM Royal Dutch Airlines. The status of British West Indian Airways is in doubt.

It was the traffic meetings, however, which stole the show in Brazil, and in these meetings it was Gordon McGregor who occupied the limelight as a tough taskmaster who pounded and prodded until he had settled all differences of opinion on traffic problems. Forty-six years old, McGregor is a newcomer to air transport, which may be the secret of his success in handling airline traffic men. Until the outbreak of the war he was with the Bell Telephone Company, but he had been flying since 1932 and had won a number of amateur flying trophies.

McGregor's war record was outstanding and he was awarded the D.F.C. and the O.B.E. He fought in the Battle of Britain and ran up a score of five and a half enemy aircraft destroyed, seven probables and eight damaged. Later he was appointed to the command of the Second Canadian Fighter Squadron and



At Rio Conference—Pan American representatives at the IATA traffic conference in Rio de Janeiro last month included, left to right, Mario J. Martinez, Pan American Airways traffic manager at Rio; C. W. Smith; Richard Lounsbury; and Dr. Mauricio Soares, sales manager, Panair do Brasil.

took part in wing sweeps over France. He joined TCA when released from the RCAF, and was named general traffic manager in January, 1946.

In appreciation for his services for conducting the meetings "through abysmal passages, tortuous tunnels and cantankerous curves of Overcast Castle," the traffic men invested McGregor "with the badges of office of a Fine Fellow, a Great Guy, Un Hombre simpatico y magnifico, un homme magnifique and um magnifico homén."

Stakes Were High

There was little question but that the destiny of IATA was somewhat at stake at the Brazil meetings. Failure to achieve results would not have meant the end of the organization, but failure to agree on standardization would have meant a great loss of prestige and effectiveness of the international organization. It was generally sensed that IATA either had to perform, right now, or become a perfunctory outfit with little usefulness.

The meetings proved that the airlines of the world can get together and iron out their problems in a practical way. There was a lot of give and take. Some airlines swallowed their prides and reversed earlier positions in order to achieve unanimity of action. There is little doubt, now, that IATA is firmly established as an international working organization. And there is little doubt, too, that the selection of Sir William Hildred as the working executive of IATA has proved to be exceedingly wise.

Northwest Raises Fares On Domestic System

The first general fare increase instituted by a domestic scheduled airline since the industry-wide boost of last spring went into effect on the domestic system of Northwest Airlines on Oct. 24, and is being watched closely by other carriers interested in seeing how it is received by the traveling public.

The tariff, allowed to become effective by the Civil Aeronautics Board after the usual 30-day notice, adds a straight 10% to one-way fares and at the same time offers a 10% reduction on round-trip tickets.

To date, no other carrier has announced plans for upping fares or granting round-trip discounts, but others are known to be seriously considering an increase to meet high level costs. At least one major airline, American, has spoken out against any increase at this time.

November 1, 1947

Competition for Rail Express:

Airline Cargo Volume May Soon Outgrow Facilities

By KEITH SAUNDERS

For the airlines whose new low air freight tariffs were allowed by the Civil Aeronautics Board to become effective last month, pending investigation, the hoped-for opportunity of making a strong bid for rail express traffic has finally come true.

But along with realization of this has come the prospect that within 60 to 90 days the volume of air cargo generated may exceed available space on the carriers' planes and facilities for handling it on the ground.

Such is the position in which American Airlines, United, Capital and others now fear they may find themselves before the end of the year as a result of having lowered their cargo tariffs to the point where they not only are competitive with the independent air freight lines, but in a good many cases are on a par with rail express rates.

For, while they certainly need—and are making a bid for—the revenues that will come from a sharp increase in cargo volume, they are not prepared to handle any great increase in air freight and air express in the immediate future. Except for American, which is adding six converted DC-4's to its cargo fleet, none of them has any substantial number of all-cargo planes at present or has good prospects of acquiring them.

Furthermore, at most airports the space available for handling of cargo is hardly adequate even for the volume of cargo currently being handled, and would be totally inadequate should the volume increase appreciably. And in a number of cities, cartage firms handling air cargo pickup and delivery services are not prepared to cope with a sudden expansion of such shipments.

Cargo Rates Frozen

Holding present air cargo tariffs to be "reasonably competitive," Civil Aeronautics Board on Oct. 24 issued a freeze-order blocking all changes in such tariffs for a period of 90 days, pending its determination as to whether "reductions from existing rate levels are lawful."

In its action, which granted in part petitions of Slick Airways and the Independent Air Freight Association, the Board suspended proposed all-commodity rates of United, Western, Southwest, and Inland, and, specific commodity tariffs of Capital, TWA and American.

Some indication of the kind of expansion which may be expected is seen in the experience at Detroit's Willow Run Airport, where Air Cargo, Inc., operates a joint cargo terminal for the seven carriers using the field. Air freight shipments through the terminal in August, first month in which the consolidated cargo tariff reducing rates about 25% from an average of 26¢ a ton-mile to an average of about 20¢ was in effect, amounted to 895,000 pounds. In September the volume rose to 1,216,000 pounds, and figures for the first two weeks of October indicated the month's volume would be between 2.0 and 2.25 million pounds.

At Chicago, air cargo shipments last month were up to more than 500,000 pounds a week, or nearly double the August volume. A survey by the traffic department of United Air Lines showed that about 20% of this increase in air cargo shipments was due to the strike of Railway Express Agency drivers in New York City, while the other 80% was held attributable to the reduced air freight tariffs. And sales work centered in generation of business under the August tariff reductions was just getting under way. Now, with rates of some of the carriers down another 33%, a new flood of air cargo shipments may logically be expected.

Rail Express at 12.6¢

An increase in rail express rates allowed by the Interstate Commerce Commission to become effective last Jan. 13 boosted these rates to 11¢ a ton-mile. A further increase approved about six weeks ago raised rail express rates to about 12.6¢ per ton-mile, which brought them right in line with the lowest tariffs now quoted by United, American and Capital on many classes of commodities between many pairs of route points.

Tariff-wise, then, these airlines at last are ready to compete for hundreds of millions of pounds of shipments that have been moving by rail express. Much of this rail express potential the airlines cannot hope to touch because of the short distances over which the shipments move, but there is nevertheless a tremendous potential which they can reasonably hope to divert to themselves provided they can develop terminal handling facilities and pickup and delivery services that will preserve the advantages gained by the speed of airport-to-airport transportation and can maintain a high ratio of schedule completions.

Pogue Tells How To Streamline CAB

By GERARD B. DOBLEN

The President's Air Policy Commission, it is believed, will make strong recommendations dealing with changes in the administrative set-up of the Civil Aeronautics Board in the interests of streamlining and expediting Board procedures.

Suggestions and recommendations by L. Welch Pogue, former chairman of the Board, are being given a good deal of weight in the commission's consideration of the declared need for revamping the procedural processes. Pogue suggested that consideration be given to the creation of a seven man Board which would operate under a division set-up similar to the Interstate Commerce Commission.

Commission members were so impressed with Pogue's suggestions and recommendations made at an open hearing that a private informal session was held with him later.

In his formal testimony, Pogue gave the commission three important suggestions for expediting Board procedures. The first related to the quality and adequacy of the staff. Pogue said that he felt the Board's staff was of good quality but inadequate to handle expeditiously the great increase in the volume of regulatory practices. With reference to the possible establishment of divisions, Pogue would make the decision of a division head final, subject to review by the entire Board for cause, for board policy reasons, and in cases of where decisions might concern other divisions.

The third recommendation was that the Civil Aeronautics Act be amended so as to permit the Board to delegate all matters which it felt could be turned over to its staff.

Pogue disagreed with CAA Administrator T. P. Wright who had recommended earlier to the commission that rule making powers of CAB in safety matters be transferred to the Civil Aeronautics Administration. Pogue held that the Board, in its quasi-judicial capacity, was better able to formulate the rules than the enforcement agency because it was more completely exposed to all of the divergent views of the affected parties. He said that the purely accident investigation powers of the Board might well be transferred to an independent agency and recommended that the National Advisory Committee for Aeronautics be considered for that role.

The former CAB chairman urged the Commission not to recommend a moratorium on new routes or on route extensions. He said this was an administrative problem, that the current gloomy financial picture of the

Martins in Service

The Martin 2-0-2 made its debut in scheduled airline operations Monday, Oct. 13, when Northwest Airlines put the new twin-engine transport into service on its Minneapolis-Chicago route segment. The flight is a nonstop.

There was no fanfare in connection with the initial flight. Northwest officials having decided to hold back on publicity until the entire fleet of ten 2-0-2's it is acquiring from the Glenn L. Martin Co. has been put into service.

airlines was not basic, but more or less temporary in nature.

He suggested amendments to the Civil Aeronautics Act which would give the Board authority to establish the domestic route pattern somewhat along lines of action taken by the Board when it laid out the prospective international routes.

Pogue urged appointment of an aviation consultant for the President who might well act in the dual capacity of executive director of the Air Coordinating Committee.

AOA Pilot Strike Ends After 18 Days

The American Overseas Airlines pilots' strike, second in the industry within a year, ended on Oct. 18, and two days later the contract under which the pilots will work for the next year was signed.

Meanwhile, during the 18 days the pilots were out on strike (it started Sept. 30), AOA had lost a lot of money, had incurred a loss in goodwill through the stranding of 1,000 passengers at London and other overseas points, and had been forced to lay off hundreds of experienced employees, many of whom could not be rehired at the end of the dispute because of winter schedule cutbacks.

The strike ended when the National Mediation Board, which claimed it had had no advance notice of the walkout, initiated negotiations between the company and the Air Line Pilots Association (ALP). After less than 10 hours of conferences, a 42-section, 23-page contract, which had previously been in process of negotiation for some 23 months, during most of which time it was virtually stalemated, was ready for signing.

The new contract, which covers 173 pilots and co-pilots for one year, provided the highest wages in the history of commercial flying, ranging from a minimum of \$350 a month for a starting co-pilot to \$1,207.74 a month for a Constellation captain with eight years' service who flies 85 hours maximum a month.

A clause giving the AOA pilots back pay to Dec. 1, 1945, gave lump

sums ranging from \$5,336 to the highest paid pilots, who previously received a maximum of \$1,075 a month, to \$2,300 for the lowest paid, who previously received \$250 a month. Total cost of these payments to the company was estimated at \$600,000.

Also provided in the contract is a guarantee of 70 hours of flying a month for the pilots, but the company said it would make every effort to give the pilots 85 hours, the maximum permitted by the Civil Aeronautics Board.

While the strike was in progress, the airline had issued a statement in which it said the terms of pay and all other issues except terms as to hours of service and trip notification had been agreed upon prior to Sept. 25, five days before the strike started. Behncke had declared the strike order was "unfortunate, but necessary," and that it had been issued only after a breakdown in negotiations brought on by "strong-arm" company tactics.

Aviation Calendar

Nov. 3—Dedication Charleston, W. Va., airport, 1 p. m.

Nov. 6-7—SAE Fuels & Lubricants Meeting, Hotel Mayo, Tulsa, Okla.

Nov. 13-16—"Wings over the Nation" sponsored by Junior Chamber of Commerce, Long Beach, Calif.

Nov. 15—Western Aviation Planning Conference, Wilton Hotel, Long Beach, Calif.

Nov. 19-22—Fifth Annual National Aviation Clinic, Springfield, Ill., State Capitol.

Nov. 20-23—American Society of Travel Agents convention, French Lick Springs, Ind.

Dec. 1-3—SAE Air Transport Meeting, Hotel Continental, Kansas City, Mo.

Dec. 1-3—Aviation Distributors and Manufacturers Association annual meeting, Hotel Adolphus, Dallas, Tex.

Dec. 1-5—American Society of Mechanical Engineers and American Rocket Society, Chalfonte-Haddon Hall, Atlantic City, N. J.

Dec. 3-4—Aircraft Industries Association board of governors meets, Los Angeles.

Dec. 4-6—Society for Experimental Stress Analysis, annual meeting, Hotel Pennsylvania, New York.

Jan. 9-11—All-American Air Maneuvers, Miami, Fla.

Jan. 15-18—Southeastern Soaring Contest, Sanford, Fla.

Jan. 26-28—American Road Builders' Association convention (including airport group), Washington, D. C.

International

Nov. 3—ICAO meeting on multi-lateral agreement on commercial rights, Geneva.

Nov. 18—ICAO Search and Rescue Division, Montreal.

Jan. 13—ICAO statistics division, Montreal.

March 23—ICAO maps and charts division, Brussels.

March 30—ICAO personnel licensing division, Montreal.

April 20—ICAO Rules of the Air and Air Traffic Control Division, Montreal.

CAB Proposes Legal Status For Freight Forwarders

By DANIEL S. WENTZ II

Clear indication that the Civil Aeronautics Board intends to create a legal and economic place for freight forwarders within the general U. S. air transportation system came Oct. 24 with release of a draft Economic Regulation 292.6 proposing exemptions and regulations to make freight forwarders legal.

The proposal sets up regulations under which "Non-Certificated Indirect Air Cargo Carriers" may engage in indirect transportation of property as common carriers in interstate overseas and foreign air transportation. It limits their activities to business with only those carriers authorized by CAB to carry property by air.

The proposed regulation defines a Noncertificated Indirect Air Cargo Carrier to mean "any uncertificated air carrier which indirectly engages in interstate, overseas or foreign air transportation only." In explaining this, CAB said that an indirect carrier in general "may be considered as one which holds out to the public that it will undertake to transport property by air for compensation although such carrier does not itself physically operate aircraft but utilizes the services of some other person to move the property from origin to destination."

Under the proposal, such operators may deliver cargo for air transportation only to: (1) certificated airlines; (2) non-certificated irregular or cargo carriers holding Letters of Registration under CAB Economic Regulations 292.1 and 292.5; (3) Alaskan air carriers; and (4) carriers who hold foreign air carrier permits. This restricts forwarders from dealing with any but common carriers.

The proposed regulation, if adopted, will exempt forwarders from the requirement of holding a certificate of convenience and necessity plus certain other sections of the Civil Aeronautics Act. They will have to comply with those sections of the Act dealing with: (1) labor legislation; (2) filing of tariffs; (3) carrier's duty to provide safe service, equipment and facilities, and to establish and observe just and reasonable individual rates, fares, charges, rules and regulations; (4) discrimination; (5) filing reports with CAB; (6) disclosure of stock ownership; (7) form of accounts; (8) interlocking relationships; (9) methods of competition (10) pooling and other agreements; and several other sections of the Act.

November 1, 1947

Delta Gives Raise

The two thousand employees of Delta Air Lines received a double surprise with the last paycheck. Not only was the check larger by an average of 13%, but attached was a notice saying that checks would continue to be as large. Not one of the top executives was given a salary increase. It is understood that the company-wide upward jump amounts to about \$67,000 a month.

Forwarders who wish to enjoy the exemptions proposed must file (within 60 days after the regulation is adopted) for a Letter of Registration. No one may function as a forwarder without such a letter unless he has an application for a letter on file by the deadline date. Applications for such letters must contain: (1) date; (2) name of forwarder; (3) mailing address; (4) location of principal office; (5) place of incorporation, names and citizenship of officers and directors, holders of more than 5% of outstanding stock, and a statement that the company is at least 75% U. S. owned or controlled; and (6) if an individual or partnership, the name and citizenship of owners or partners. Applications must be submitted in triplicate in letter form.

All letters issued will expire 60 days after Board's decision in the Freight Forwarder Case. (Docket 681 et al.)

Comments in writing should be addressed to the Secretary of the Board for receipt not later than Nov. 17.

Trans-Atlantic Lines Cut Winter Flights

Sharp downward revisions of flight schedules across the North Atlantic have been effected by Pan American Airways, TWA, and American Overseas Airlines in preparation for winter operations.

AOA originally had not planned to institute its winter schedule until Dec. 24, but advanced the implementation date because of the disruption resulting from the recent pilots' strike. After settlement of the strike two weeks ago, operations were resumed on a schedule of 15 round trips weekly between the U. S. and Europe, as compared to 24 during summer operations.

TWA, which during the summer months operated 19 scheduled round-trip passenger flights and one round-trip cargo flight across the Atlantic, has cut down now to 13 passenger round-trips and one all-cargo round-trip weekly. Despite these reductions, TWA planned wider coverage by continuing some flights previously terminating in Paris in order to raise the total to Palestine from three to five, the three to Darien to four and the six to Athens to seven.

Pan American reduced from summer schedules of 48 flights weekly across the Atlantic to 30. The winter schedules provide for two round-the-world flights; seven New York-London flights; three New York-Lisbon-Cairo; two New York-Lisbon-Johannesburg; 10 New York-Bermuda; one Washington - N. Y. - London-Brussels; one Washington-N. Y. - London-Brussels-Frankfurt; one New York-London-Brussels; one New York-Shannon-Brussels-Frankfurt; one N. Y. - London-Istanbul-Damascus, and one N. Y. - Lisbon.



New Delta Base—Completion of Delta Air Lines' \$1,000,000 expansion project at Atlanta Municipal Airport was celebrated with "Family Day" for employees on Oct. 25, and open house for the public the following day. The expansion includes a 29,450 sq. ft. hangar to the right, 15,790 additional sq. ft. in shop space in right rear, and 22,570 sq. ft. in new offices in right foreground. New engine test cell designed to reduce noise is to the extreme right. New offices and shops were designed and constructed by the aviation division of the Austin Company.

NWA Gets Long-Sought Entry into Washington

Northwest Airlines got its long-sought entry into Washington in the Detroit-Washington Case decision of Oct. 10, in which it was authorized to extend its service from Detroit to Washington, via Cleveland and Pittsburgh.

But the award was hedged about with restrictions intended to protect Capital Airlines from too much diversion on its Detroit-Washington Route 14, and as further protection the Board lifted out of the Middle Atlantic Case all applications proposing new trunkline service to Pittsburgh and denied them.

Then, in a concurrently-issued supplemental opinion on the North Central Case, CAB further compensated Capital by extending its Route 14 from Milwaukee to Minneapolis-St. Paul, subject to a restriction that Twin Cities be served only on flights originating or terminating at Detroit or points east.

Reason for approving this extension, the Board said, was to provide local service to the east. American Airlines' application for an extension to Twin Cities was denied on the ground that it would divert too much traffic from Capital and other carriers.

Extension of NWA's route into Washington was predicated largely upon the long-haul possibilities of one-carrier service from Washington to the points it serves in the northern tier of states, in the Pacific Northwest and in the Orient, and the national defense potentialities of such service. It was pointed out, also, that NWA was the only transcontinental carrier without entry to Washington.

The 415-mile route extension carries a restriction limiting NWA's service east of Milwaukee to flights originating at Twin Cities or a point west and terminating at Washington, or originating at Washington and terminating at Twin Cities or a point west. This, of course, was aimed at minimizing local competition on Capital's Route 14. Chief ground for denying all applications except NWA's was that the most of them proposed direct paralleling competition for service along this route.

The same considerations prevailed in the decision on the Pittsburgh trunkline service portions of the Middle Atlantic Case, in which refusal of the applications of TWA, United and Eastern was based on CAB's unwillingness to subject Capital to diversion. The majority decision held Northwest's entry as a second transcontinental should satisfy Pittsburgh's needs for the time being.

A concurring and dissenting opinion by Member Clarence M. Young said Pittsburgh should have been made an intermediate on Eastern's Route 6 between Roanoke and Akron, thus providing Florida service for Pittsburgh. He said this would offer time, mileage and fare savings for 10,000 passengers annually, and that suitable restrictions against EAL could cushion Capital's Route 14 local traffic against diversion.

"Assuming that actual diversion to an extent which reasonably may be expected does create a problem for Capital, there must be some point at which the private interests of an individual carrier need give way to the interests of the traveling public, and I am aware of no application for new service ever rejected by the Board in which the disparity between public and private interest has been more convincingly demonstrated than in this proceeding," wrote Young.

American International Airways Suspended for Violations

The Letter of Registration of American International Airways, Inc., owners of the flying boat forced down at sea last month with 69 persons aboard, was suspended Oct. 17 by the Civil Aeronautics Board, which also directed the carrier to show cause why its Letter of Registration should not be revoked for "knowing and willful violations of the Civil Aeronautics Act." The CAB said the airline had no authority to fly passengers internationally. Everyone on the flying boat was saved by crew of the Coast Guard weather ship, Bibb.

K. C.-Memphis Route Awarded to C & S

A new Kansas City-Memphis route for Chicago and Southern Air Lines was the only grant made by the Civil Aeronautics Board in its Kansas City-Memphis-Florida Case decision issued Oct. 10. Similar or more extensive applications by Braniff, Delta, Eastern and Mid-Continent were denied.

The majority decision, from which Chairman James M. Landis and Member Josh Lee dissented, held that a new 386-mile route between Kansas City and Memphis, via Springfield, Mo., should be awarded to C. & S. because:

- (1) It is a local service carrier better suited to develop local traffic.
- (2) It has historically participated in building Kansas City-Memphis connecting traffic and should not be deprived of the right of serving this business directly.
- (3) It needs the economic strength the route will give.
- (4) Its proposals mean less diversion than those of other carriers.

However, to prevent undue diversion of traffic from Mid-Continent's Kansas City-New Orleans route by C. & S., the Board included in the C. & S. route certificate a restriction that all Kansas City-New Orleans flights by that carrier shall also serve both Springfield and Memphis, and that all flights between Kansas City and Shreveport or Houston shall serve Springfield and Memphis.

PAA Extended to Melbourne

Pan American Airways has been placed in a better competitive position with Australian National Airways following CAB action extending its route from former terminus, Sydney, to Melbourne in southeastern Australia. Sydney becomes an intermediate point on the route which runs from San Francisco to Australia via a series of island stepping stones. ANA's trans-Pacific service to the U. S. originates from Melbourne.



First Honolulu Run—Largest landplane ever to visit Honolulu, this Air Transport Command Boeing Stratofreighter is seen after pulling to a stop at Hickam Field air terminal. Three Stratofreighters began scheduled cargo operations on the Fairfield-Honolulu leg of ATC's trans-Pacific route on Oct. 15, and later in the year will begin passenger service. First flight was made in 9 hours, 50 minutes, carrying load of 16,000 lbs., more than twice the regular cargo of ATC's C-54 transports.

AMERICAN AVIATION

Braniff Progresses Toward S.A. Service

Although still beset by snags in operational arrangements, plans of Braniff Airways for inaugurating service over its certificated Latin American route were advanced on several fronts last month.

The Civil Aeronautics Board, which approved Braniff's application for extending its routes southward in May, 1946, helped the carrier over two hurdles in early October by setting a temporary mail pay rate for the route and by granting Braniff permission to fly non-stop over three route segments.

Braniff applied for a temporary mail rate last April, claiming its working capital would be dissipated unless mail pay were available when service started. It asked 151.73c per airplane mile for a 300-pound base mail load, but the CAB held this to be too high. The temporary rate set by the Board in a show cause order issued Oct. 6 is 95c per plane mile for an average daily mileage of 3,185 miles, with provision for automatic adjustment in situations in which the daily scheduled mileage may exceed the daily designated mileage.

The rate was set on three through schedules a week between Houston and Lima, Peru, the Board hesitating to set a rate on schedules beyond Lima because of "operational difficulties and uncertainties as to the effective date and nature of the operating rights."

The non-stops granted Braniff by CAB are: Houston-Balboa; Balboa-Guayaquil; and Balboa-Lima.

One of the three schedules per week at the outset will be an extra-fare DC-6 sleeper flight operating on a 10-hour schedule from Houston to Lima, via Panama. The second schedule will be a DC-4 flight from Houston to Lima, via Havana, Panama and Guayaquil.

Unique Cargo Arrangement

The third trip will be a combination cargo-passenger flight, which Braniff executives foresee as one answer to the unbalanced cargo traffic between this country and South America. On southbound flights where cargo loads are heavy only a few passenger seats will be sold, and on northbound flights there will be space for about 30 passengers in addition to light freight loads.

On the southbound flights, the forward part of the passenger compartment will be filled with cargo, a curtain will be drawn to block off this section, and the remaining space will be sold to passengers at a 25% discount. Seats will be of the folding bench type, each fitted with a foam rubber cushion which will also serve as a back and head rest. Cold box

November 1, 1947

Peru Objects to Braniff's Proposed Fare Cut

Braniff Airways' proposal to sell bench-type seats to passengers at a 25% reduction when cargo loads are light on DC-4 cargo planes operating over its South American routes has been opposed by Peruvian International Airways, PIA, with whose Lima-New York service the proposed Braniff service would be competitive, charged that Braniff has not been authorized to fix tariffs of any class.

In support of this statement, it quoted the U. S.-Peruvian bilateral agreement to the effect that "the rates to be charged by airlines of either contracting party between points under their jurisdiction shall be made at reasonable levels, due regard being paid to all relevant factors such as the cost of operation, reasonable profit, and the rates charged by any other carriers, as well as the characteristics of each service."

Peruvian concluded that Braniff's proposal, "in view of the high costs of air transport, would be prejudicial to all of the companies and to the good service which the public expects from them."

lunches will be served on such flights in lieu of the customary hot in-flight meals.

Meanwhile, Braniff encountered another operational snag in the refusal of Pan American Airways to provide Braniff with ground facilities for the Houston-Balboa portion of the route.

"Competition between our companies cannot be expected to be on a basis whereby we have all the burdens and risks arising from the investment of capital in ground facilities abroad and you have none," Wilbur L. Morrison, PAA vice president, said in a telegram to Braniff.

He qualified this position, however, by stating that "in the case of any of our stations at which substantial improvements have been made with public funds, we will fully perform our obligation to make facilities available to your company on the same equitable cost-sharing basis as has been done for other air carriers."

U. S. Sued for Negligence In Newfoundland Accident

Three suits seeking a total of \$300,000 have been filed in Federal Court, Brooklyn, against the Government in behalf of the widows of three crew members killed Oct. 3, 1946, in the crash of an American Overseas Airlines plane in Newfoundland. The Government is charged with negligence in failing to provide beacons, markers or signals "to safeguard against the dangers of the terrain."

CAB Actions

Oct. 7—Show cause order issued to Braniff Airways proposing mail pay rate of 95c per airplane mile for Braniff's Latin American operations. (Docket 2886).

Oct. 9—Order cancelling wartime New York-Lisbon route certificate awarded to Pan American Airways on a national defense basis. (Docket 713).

Oct. 9—Decision amending the San Salvador-Miami Foreign Air Carrier Permit of TACA, S. A., to include Belize, British Honduras, as an intermediate point. (Docket 2855).

Oct. 10—Decisions in Detroit-Washington Case (Docket 679 et al.), Kansas City-Memphis-Florida Case (Docket 1051 et al.), and supplemental opinions in the North Central (Docket 415 et al.), Southeastern State (Docket 501 et al.), and Eastern Air Lines, Routes 10 and 40 Consolidation Cases (Docket 1971) issued by Board.

Oct. 10—Opinion amending Pan American Airways' Australian certificate to extend the route from Sydney to Melbourne. (Docket 2881).

Oct. 10—Decision on portions of Middle-Atlantic Area Case dealing only with trunk-line service to Pittsburgh issued by Board. (Docket 674 et al.).

Oct. 17—Show cause orders proposing higher standard rates of mail pay for trans-Atlantic and European operations of American Overseas Airlines, Transcontinental & Western Air, and Pan American Airways issued by CAB. (Docket 1666, AOA; 1706, FAA; 2375, TWA).

Oct. 17—Show cause order proposing mail pay at 25c per airplane mile issued to Colonial Airlines for its New York and Washington to Bermuda operation. (Docket 3008).

Oct. 20—Board order instituting new proceeding on applications for Los Angeles-Hawaii Service. (Docket 3166).

Calendar

Nov. 3—Hearing in the Boston-Bermuda Service Case. (Docket 1650 et al.) 10 a. m., e.s.t., Room 220, Old Court House Building, Pemberton Square, Boston, Mass. Examiner William F. Cusick.

Nov. 10—Hearing on foreign air carrier permit application of Aerline Eireann Teoranta. (Docket 3092). Examiner Barron Fredricks.

Nov. 10—Oral argument in the TWA-Delta Equipment Interchange Case. (Docket 2346). 10 a. m., e.s.t., Room 5042, Commerce Building. Postponed from Oct. 23.

Nov. 13—Oral argument in the Pacific Northwest-Hawaii Case. (Docket 2537 et al.) 10 a. m., e.s.t., Room 5042, Commerce Building.

Nov. 15—Hearing on the board's Investigation of the Consolidated Air Freight Tariff. (Docket 2719). Examiner Herbert K. Bryan.

Nov. 17—Oral argument in Pan American Airways' Juneau-Ketchikan (Alaska) Restriction Case. (Docket 1972). 10 a. m., e.s.t., Room 5042, Commerce Building.

Nov. 24—Hearing on applications for service to Lawton-Fort Sill, Okla. (City of Lawton and Continental Air Lines). (Dockets 2835 and 2995). Examiner Barron Fredricks.

Nov. 24—Hearing on Mid-Continent Airlines' Route 26 Amendment Case. (Docket 1956) Tentative. Postponed from Sept. 29.

Nov. 25—Hearing on applications of TACA, S. A., (El Salvador) for renewal of its San Salvador-Miami and San Salvador-New Orleans Foreign Air Carrier Permits. (Dockets 3016 and 3017). Examiner William J. Madden.

Dec. 1—Hearing on reopened portions of the Great Lakes Area Case, involving Pennsylvania-Central Airlines' applications for authority to operate without restriction between Chicago and Youngstown, Akron, Cleveland and Pittsburgh. (Dockets 1789 and 1790). Examiner William F. Cusick.

PERSONNEL

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Administrative:

J. J. O'Brien has resigned as president and director of California Eastern Airways, independent air freight carrier, to accept an offer from another company, which, he said, in the interests of his family, he could not refuse. One of the original founders of Cal Eastern, O'Brien stated that the company had shown a cash profit in September, his last full month as president.

L. F. Hampel has been designated director of budgets and research for United Air Lines. He joined UAL in 1942 and has been manager of the economic research division.

Junius H. Cooper has been elected a director of Chicago and Southern. He joined the company in October, 1946, as treasurer and was elected v.p. last February.

James R. Beverley has been named v.p. and director of Caribbean Atlantic Airlines, succeeding **Benigno Trigo** who resigned to devote more time to other business activities. Beverley is a San Juan attorney and former governor and attorney general of Puerto Rico.

J. L. Weller and **T. K. Taylor** have been named assistants to Warren Lee Pierson, chairman of the board of TWA. Weller, who joined TWA in November, 1945, as assistant to the general manager of the International Division, will coordinate activities related to IATA and ICAO. Offices will be in New York. Taylor, who joined TWA last year as staff assistant in the office of the board chairman, will be in Washington.

Dr. Robert W. Bradbury, former educator, economist, and civil air attache in Mexico City, has been appointed special executive representative for Pan American Airways' Latin American Division. With headquarters in Miami, Dr. Bradbury will spend much of his time in Latin America, where he lived for a number of years.

August J. Schmitt, 20-year veteran in transportation, has been named Dallas district manager for Slick Airways. He has been serving as cargo sales manager for Alaska Airlines in Anchorage, and formerly was western regional sales manager for American Airlines' Contract Air Cargo Division.

Robert E. Wieland, special representative of National Airlines in Cuba, has been elected chairman of the finance and public relations committee of the Air Transport Association of Cuba.

William H. Lyons has been appointed district manager of the Iberian Peninsula and Africa for Pan American Airways. Prior to this assignment he had been assistant to David S. Ingalls, v.p. Lyons will be headquartered in Lisbon.



Capt. James R. Gilmore
In Charge of PAA Navigation

R. W. Williams, formerly with American Airlines, has assumed new position as eastern regional manager for Air Cargo, Inc. His headquarters will be in New York, temporarily at La Guardia Field.

Robert H. Ames has resigned as advertising manager of Capital Airlines to become circulation director of *Kiplinger Magazine*, Washington.

Operations-Maintenance:

Capt. James R. Gilmore, who joined Pan American Airways in 1939, has been appointed assistant chief pilot in charge of navigation department of the Atlantic sector. During the war he served as captain on aircraft operated by PAA under contract to the Air Transport Command.



Abel

Nicholson

Charles G. Abel, formerly assistant chief agent for Eastern Air Lines at Memphis, has been appointed station manager in that city. He replaces **M. C. Nicholson**, who has been transferred as station manager to St. Louis.

Richard A. Taylor, formerly assistant chief agent for Eastern Air Lines in Orlando, Fla., has been appointed station manager in Brunswick, Ga. He joined EAL as a courier in 1940.

Peter Wolf has been named director of communications for Western Air Lines. He has been with WAL since 1937.

Kenneth L. Wickwire has been appointed station manager for United Air Lines at Elko, Nev. He started in aviation with Boeing Air Transport in 1929 and during the war served in UAL's Pacific operations as station manager at New Guinea, Guam, Seattle, San Francisco, and Oakland.

Robert M. Evans, who joined Pan American Airways as a traffic clerk 10 years ago, has been appointed assistant superintendent of stations for the Latin American Division. He has been in the Miami office of superintendent of stations since last February.

Jack L. Thayer, veteran of 18 years of flying, has been named system chief pilot of Western Air Lines. He replaces **Marshall Wooster**, now on leave of absence. Thayer joined WAL in 1935, and has logged more than 12,500 hours.

Lane W. Smith has been named regional chief pilot of Western Air Lines' Routes 13 and 63 with headquarters at Los Angeles. He has been flying for WAL since 1938 and has logged more than 8,000 hours as a military and commercial airline pilot.

H. C. Larsen, veteran of 20 years in air transportation, has been named station manager for United Air Lines at Gooding, Idaho, replacing **H. B. Wilcox** who has been transferred to Ogden. Larsen's most recent assignment has been at Spokane.

J. Y. Meyer, who joined United Air Lines in 1939, has been named station manager at Spokane. He was formerly chief of station operations at San Francisco.

J. W. Tiernan, Air Force veteran and aeronautical engineer, has joined the engineering department of Braniff Airways at Dallas. He is in charge of design for technical changes in DC-3 planes.

B. W. Trussell has been appointed director of purchasing for American Airlines, replacing **Otto H. Hamm**, resigned. Trussell joined AA as ticket agent in 1936, and has been assistant director of purchasing since 1945.

Austin Trumbull has been appointed superintendent of radio-electric engineering for United Air Lines at San Francisco. He joined UAL's communications department in 1930 and has been factory representative at the Douglas Aircraft plant since July, 1944. Trumbull's place at Douglas has been taken by **R. A. Young**, aeronautical engineer from San Francisco.

Arthur L. Armstrong, formerly station manager for Eastern Air Lines in Savannah, Ga., has been designated station manager in Evansville, Ind.

E. L. Matheson, who has several years experience with various airlines, has been appointed terminal manager of Air Cargo's consolidated air terminal at Willow Run, Mich.

AMERICAN AVIATION

B. R. J. "Fish" Hassell has been appointed v.p. and airport manager of the Iceland Airport Corp., an American Overseas Airlines affiliate which operates Keflavik Airport in Iceland. He succeeds Walter M. Hunter who returns to the U. S. for another assignment after 16 months in Iceland. Hassell has been associated with aviation since 1913, both as pilot and executive.

Traffic and Sales:

Robert England, former Northwest Airlines district traffic manager in Seattle, has been named traffic and sales manager for West Coast Airlines. In addition to more than six years as traffic representative and d.t.m. for NWA, England for five years was in reservations and traffic with United Air Lines in Seattle.



Garrett

Jordan

E. Spencer Garrett has been appointed district sales manager at Miami for Pan American Airways. He has been with PAA since 1937, and has been station traffic manager at La Guardia Field since September, 1946.

George F. Jordan, formerly field and traffic manager for Eastern Air Lines in Evansville, Ind., has been appointed traffic and sales manager in Indianapolis. He has been with EAL for 10 years.

James G. Erwin, who has been district cargo sales manager for Capital Airlines in Milwaukee, has been promoted to system cargo supervisor. He has been with the company two years.

George R. Corey, Jr., former assistant general manager, has been appointed v.p.-sales of American Airlines de Mexico. He joined AA in 1939 as a reservations agent in Los Angeles and was transferred to AA de Mexico as director of sales in 1943.

Harvey Tafe, formerly Washington manager for Consolidated Vultee Aircraft Corp., has been appointed manager of the sales department in Los Angeles. **G. A. Mueller**, former contracts manager at San Diego, is new Washington manager, while **W. C. Wold**, aircraft sales engineer, has been named manager of the New York office.

George H. Rounthwaite, who until recently was in United Air Lines' airport section in Chicago, is now with North American Aviation as a mechanical engineer and coordinator in the company's supersonic wind tunnel project.

November 1, 1947

Airline Commentary

By ERIC BRAMLEY

WE HAVE at hand what we imagine is supposed to be an example of railroad humor . . . The Southern Pacific Railway (the "friendly" SP, that is) has a publication called the "Safety Messenger" . . . In the July issue, on page 4, appears an article headed "Next Time Try the Train" . . . We want all you airline people to tickle yourselves and break into huge guffaws when you read it . . . Here it is: "A middle-aged gentleman making his first flight in a transcontinental plane became very airsick while flying at great height. The hostess inquired for a doctor but found no M.D. However, she told the distressed man there was a very good veterinarian aboard. The patient said 'he'd do, bring him over, for I was a jackass and should have known better than try to fly'" . . . Quoting this article is probably the biggest waste of space that has ever occurred in this column, but we want to get it out where you can all see it . . . It didn't appear in a humor column, mind you, but in a publication which, according to the masthead, is "dedicated to safety education" . . . Also, remember that humor can be a very malicious type of propaganda . . . It's all well and good to say that the publication is only a houseorgan for company personnel, but it gets around, as witness the fact that one found its way to our desk . . . The "friendly" SP is certainly guilty of what the diplomats call an "unfriendly act" . . . It would seem to us that the SP is old enough to have discarded its childish ways . . . Even the poor old airlines, still in their infancy, have better manners . . .

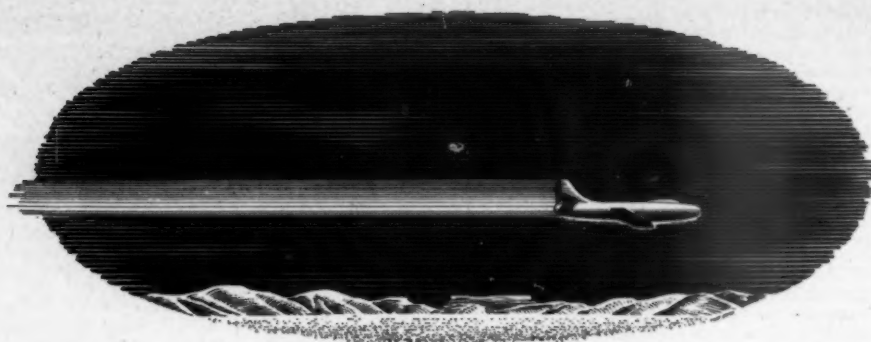
Jim Wulpi, who is TWA's district manager way out there in Calcutta, India, ran an ad recently for stewards and stewardesses . . . Here's the answer he got from an enterprising young Indian fellow: "After left the school I jump in the technical line as fitter, carpenter, electric and all other workshop job. But now-a-day my desire that I jump in the fly department. Tell me how can you afford my pay and other necessary thing" . . . This fellow ought to be a sensation in the fly department . . .

Delta Air Lines, in our opinion, has always had some of the smartest airline advertising . . . We've now had a look at the company's new series, prepared through Burke Dowling Adams advertising agency, and it's even better than the former ads . . . There's a full-page ad elsewhere in this issue, containing a number of the ads Delta will run in newspapers . . . The company is not only listing flying time, fare, phone number, address and other usual information, but is going into the reasons for flying . . . There will be ads on night flights, free meals, comfort for older folks, ease of traveling with babies, etc. . . . And for the first time, Delta is buying space on women's pages in newspapers . . . The series is one of the best we've seen . . .

And while we're on the subject of Delta's advertising, let us relate what happened during the recent Florida hurricane . . . Just about the time the hurricane was giving Florida a rough time, Delta was advertising in the newspapers, in large type, "Fly Delta To Breeze-Swept Miami" . . . Delta's president, C. E. Woolman, was really taking a ribbing, according to reports, and lots of passengers were stepping up to the Atlanta counter and asking for tickets "to breeze-swept Miami, please" . . .

Here's a letter from a reader that doesn't need any comment: "Why doesn't somebody do something about those fans inside the DC-4's so that all air passengers won't get head colds? The fans are a godsend when the plane is on the ground on a hot day, but when the plane gets into the air they ought to be turned off. I got a head cold from sitting in the draft when the steward and stewardess failed to turn off the fans. Next day on another airline the steward and stewardess left the fans on and I got them to turn them off before my cold turned into pneumonia. There's enough draft in a DC-4 without overdoing it."

Congratulations to Northwest Airlines on the booklet it distributes to new employees, telling them about the company, what it does, benefits to which they are entitled, etc. . . . It's attractive, easy to read and well done . . .



How AiResearch aids the RECORD-BREAKING JETS

PARTIAL LIST OF JET AIRPLANES USING AIRESEARCH CABIN PRESSURE AND REFRIGERATION EQUIPMENT

	CABIN	REFRIG-
	PRESSURE	ERATION
Consolidated XB-46	.....x.....	x
Consolidated XP-81	.....x.....	x
Curtiss XP-87	.....x.....	x
Douglas XB-43	.....x.....	x
Douglas D-558 (Navy)	.....x.....	x
Lockheed P-80B	.....x.....	x
Martin XB-48	.....x.....	x
McDonnell XF2D-1 (Navy)	.....x.....	x
North American B-45	.....x.....	x
Northrop YB-49	.....x.....	x
Republic P-84	.....x.....	x

• When Navy pilots smashed the world's speed record last August over the scorched desert at Muroc, California, a midjet AiResearch turbine refrigeration unit tossed snow flakes into the cockpit of the Douglas jet-powered D-558 *Skystreak*!

During the first runs which averaged 640.7 m.p.h., skin temperatures of the *Skystreak*, lashed by air friction and heat of the sun, were about 165 degrees F. Bleed air from the jet engine, source of air for the turbine, was a searing 450 degrees. Yet the AiResearch turbine discharged air into the cabin between 30 and 40 degrees, keeping cabin temperature to approximately 90°.

Thus the extreme cockpit temperatures encountered today in high-speed jet-propelled planes are being successfully controlled by unique AiResearch turbine refrigeration units. For the past eight years this company has pioneered the field, designed and built the first experimental models, and is today equipping a major share of all jet-propelled airplanes under construction or flying in the United States.

In addition, AiResearch leads in the field of complete air conditioning and cabin pressurization systems for Army, Navy, and commercial aircraft. Call upon this unusual background of skill and experience to help solve *your* aircraft air conditioning problems.

AIRESEARCH MANUFACTURING COMPANY
LOS ANGELES 45, CALIFORNIA

MIGHTY MIDGET

Tiny 3 pound AiResearch turbine, the heart of the *Skystreak* refrigeration system, operates at speeds up to 100,000 r.p.m. — delivers 7 pounds airflow per minute. When coupled with an AiResearch heat-exchanger, air temperatures can be dropped over 450°F.

CABIN PRESSURE REGULATOR

A 4½ pound pressure regulator with a 10 pound per minute airflow capacity controls cabin pressure in the *Skystreak* by automatically governing the outflow of the cooled pressurized air from the cabin.

AiResearch
DIVISION OF
THE GARRETT CORPORATION

Sales Representatives: NEW YORK, Aero Engineering, Inc.,
Hangar F, Roosevelt Field, Mineola, Long Island, N. Y. • SEATTLE, C & H Supply Co., 2723 First Ave. S. • WICHITA, N. S. Chapin, 815 E. Gilbert

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CAA Plans New Overhaul Procedures for Transports

By DAVID SHAW

Although only two postwar transport planes remain to be certificated in the near future, the CAA is working on plans for a new procedure governing the establishment (for new transport category aircraft) of maximum initial overhaul and inspection time limitations. The plan would not apply to older types, or to the recently certificated DC-6 and 2-0-2, but is expected to be put in operation in time to catch the Convair Liner and the Boeing Stratocruiser.

The scheme calls for maximum overhaul and inspection periods to be laid down in advance of operational experience, with the CAA maintenance inspector assigned to the Type Certification Board recommending a maximum for each component and then sending the recommendations to Washington for final approval and forwarding to CAA regional offices and to airlines preparing to use the airplane.

Instead of the old method under which the airlines have been working out their overhaul and inspection periods with CAA regional offices, future maximums will be inflexible and applicable to all operators. Times lower than the maximum can be established by CAA regions or by the operators if it is felt that maximums are too high for expected operating conditions.

Although the CAA's original draft of the proposal made no provision for airlines to present their views on maximum times, it is understood that the CAA intends to present all recommendations to the Air Transport Association committee on overhaul time periods. The airlines should also be able to present their views in the course of pre-certification work with the manufacturer and with the certification board.

The CAA maintenance inspector assigned to the type certification board is to prepare a draft of a breakdown of components in a form suitable for inclusion on the Operations Specifications-Maintenance forms 512A, 512B, 512C and 512D. The breakdown will carry his recommendations on time limitations for overhaul, inspection and check of each component listed on the breakdown. CAA's instructions are that the recommendations should be based on knowledge gained from working with the certification board, observing service tests, and talking with the manufacturer and other interested persons.

Accident Poll

Airline engineers are being polled by the Air Transport Association for views as to the advisability of setting up a joint program among the airlines and the manufacturing industry for the interchange of accident information and reports on malperformance of aircraft and components.

ATA has acted for some time as a clearing house on such information, voluntarily submitted, but the proposed program is designed to emphasize the need for such interchange and to lay the foundation for closer cooperation between all parties concerned, including the manufacturer.

The program would deal largely with information on emergency situations, where immediate action is required on the part of the operator encountering the difficulty and where there is reason to believe that other users of similar type of equipment may be faced with a potential hazard of like nature.

The inspector's recommendations will be studied by the certification board, approved if satisfactory, and forwarded to the CAA in Washington for review and final approval. Once adopted the time limitations will apply to all operators initiating use of the airplane for a period of at least two years from the time the first Operations Specifications are approved.

While below-maximum overhaul and inspection times may be estab-

lished by CAA regions and may vary from one airline to another, any amendment of the maximum limitations will have to be made in Washington after a review of operating experience data and amendments to Operations Specifications-Maintenance.

Amendments to the original Operations Specifications, however, will be handled by the CAA regional office responsible for approval of the airline's operations. Such amendments will be made under existing procedures based on the operating experience of the airline concerned.

Although the new plan might not appear to make adequate provision for letting airlines express their views before the time limitations are set, officials in Washington foresee no lack of cooperation before or after certification of new transport category models.

NEA Landing Minimums Cut With ILS at Boston, New York

Having equipped its planes and trained its pilots for use of the Instrument Landing System, Northeast Airlines has been authorized by the Civil Aeronautics Administration to reduce its landing minimums at Logan International Airport, Boston, and at La Guardia Field from one mile visibility and 500 feet ceiling to ¾ mile visibility and 400 feet ceiling. The company plans within six months to ask CAA for a further reduction to 300 feet and ½ mile, as its experience with ILS increases.

CAA to Supervise Arcata

Supervision of the Landing Aids Experiment Station at Arcata, Calif., will be transferred from the Navy to the Civil Aeronautics Administration next Jan. 1. It will be largely a "paper" change, involving little or no difference in operations or policy at the station, which Transocean Air Lines will continue to operate, as in the past, under contract with the Federal government.



\$1,500,000 Hangar—Northwest Airlines' new \$1,500,000 hangar was a featured attraction when the Seattle-Tacoma airport was dedicated recently. Of cantilever type, the hangar is 58 feet high and has ground space of 43,000 sq. ft.—enough for a Boeing Stratocruiser, Douglas DC-4, Martin 2-0-2, and Martin 3-0-3 at one time. A "deluge" sprinkler system is capable of pouring 4,000 gallons of water per minute into the building.

Airlines Revise Scheduling To Relieve N. Y. Congestion

As forerunner of a nationwide program designed to improve the safety, dependability and regularity of scheduled domestic airline operations, the airlines serving the New York metropolitan area were to initiate new scheduling procedures beginning Nov. 1.

The program's two phases consist of a segregation of services in the area with nearer equalization of the number of operations handled at La Guardia and Newark, and improved scheduling at peak hours.

Under the plan, La Guardia is to handle the majority of north-south traffic and Newark is to handle the majority of east-west traffic. This balanced scheduling, coupled with the normal seasonal slackening during winter months, will mean a reduction at La Guardia of inbound and domestic flights from 434 to 322, and an increase at Newark from 124 to 176 flights daily. These changes were based on the fact that La Guardia was overscheduled while Newark was being utilized to less than half its capacity.

Eastern and National, because of seasonal demands on their services, could not participate in the schedule reduction program, but all other airlines serving the area agreed to substantial reductions.

It is understood that United, American and TWA have agreed to reduce present operations at La Guardia to the extent of 50% by curtailment of some schedules and transfer of others to Newark. Capital Airlines is said to have agreed to operate three daily schedules from Newark and five, including one all-cargo flight, from La Guardia.

National Airlines, it is reported, will continue to operate only to and from Newark, and Eastern will confine its essential seasonal schedule increases to that airport, either holding operations at La Guardia at the existing level or decreasing them through transfers to Newark.

Pan American, Northwest, Colonial and Northeast reportedly will continue to conduct all operations at La Guardia, but with substantially reduced schedules during the winter months.

Further relief will be afforded through use of Westchester County Airport to handle some instrument flights to the west, northwest, north and northeast.

Slick Buys 2 More C-46's

Slick Airways has purchased two additional C-46 Commando planes for conversion to air freight use.

Good Operating Records

National Airlines reported 100% completion of schedules and 91% "on time" operations by its DC-6's from Aug. 1 through Sept. 30, first two months the new ships were in service.

Nationals' fleet flew 36,173,260 passenger miles during the September quarter, with the DC-6's accounting for about 20% of this figure. The DC-6 load factor on the Miami-New York run was 25% higher in September than in August.

Another good record of regularity was announced by American Overseas Airlines, which claimed 98.4% adherence to its published schedules for the first eight months of this year, during which time it made 1,383 crossings of the Atlantic, flew 5,319,225 revenue miles and carried 46,012 passengers.

Martin 2-0-2 Approved For 3,630-Ft. Runways

The Martin 2-0-2 has exceptionally short runway requirements—lowest for any twin-engine postwar transport—the company claimed last week. Martin indicated that CAA had approved the 2-0-2 for take-off over the prescribed 50-foot obstacle with 38,000 pounds—full gross weight—on runways as short as 3,630 feet. Also, it stated, the 2-0-2's temperature accountability limitations far surpass any other comparable transport's capabilities. At sea level, the Martin ship must sacrifice only 42 pounds of load for each degree of temperature above the 59-degree norm, whereas other planes, it was claimed, must off-load from 65 to 90 pounds for each degree of excess temperature.

Viking Line Installs Radar

Viking Airlines, of Burbank, Calif., this week claimed to be the only contract passenger air carrier or Irregular Air Carrier in the country to be completely equipped with terrain clearance radar.

Longer Life for DC-3 Types Up for Hearing on Nov. 3

The question of how much longer DC-3 type aircraft should be permitted to keep flying is expected to be debated pro and con at a public hearing to be held in Washington Nov. 3.

The hearing, called by the Safety Bureau of the Civil Aeronautics Board, is on a proposal to amend Parts 40 and 41 of the Civil Air Regulations pertaining to aircraft certification limitations for scheduled passenger operations.

Essence of the proposal, however, is whether the date of compliance by the DC-3 and other old transport types with transport category performance requirements of Parts 04a and 04b of the Civil Air Regulations should be extended to Dec. 31, 1950, or should remain, as now stipulated, at Dec. 31, 1948.

In other words, will the DC-3, in effect, be ruled off the airways 14 months hence, opening a broad market for new twin-engine types of higher performance specifications and characteristics, or is the old "workhorse" of the airlines to be given a new lease on life?

Conflicting viewpoints are involved. With their financial condition not so good and their DC-3's giving generally satisfactory if not too economical service, some of the airlines operating the hundreds of DC-3's now in scheduled service in this country

would like to be able to continue using this type as long as they last or until they can be replaced with modern equipment. Several manufacturers, on the other hand, claim the repeated extension of the compliance date for older aircraft is hindering new aircraft development.

They contend there is substantial inconsistency in a government agency encouraging development of new aircraft on the basis of more stringent regulations and at the same time allowing the operation indefinitely of aircraft designed to meet more lenient requirements.

The difference in design requirements between new transport category regulations and the requirements of a decade ago adds up to several hundred pounds of additional payload for the older planes. Manufacturers say that so long as old-type planes are permitted to fly with good payloads, the market for improved models will be somewhat restricted and uncertain, particularly in view of the great difference between the price of a new twin-engine transport and today's cost of a DC-3, many of which already have had their original costs written off.

The Aircraft Industries Association has stated it will take no stand at the hearing, although there was a possibility that several manufacturers might appear.

30 Hour Check

By DAVID SHAW

WE WENT slightly off course on a recent New York-Washington trip in order to stop at the Camden, N. J. headquarters of RCA, developers of the Teleran system of air navigation and traffic control. We wanted to see a Link trainer which they have rigged up to simulate the whole Teleran presentation. RCA's Teleran sales engineer, Hugh Spencer, and some of the staff engineers, obligingly cranked up the simulator and gave us a problem to fly . . . Indianapolis to Dayton. It was really no problem at all, even with our rusty technique.

For those of you who haven't seen RCA's latest booklet and need refreshing on Teleran principles and purposes, it is, briefly, a television-radar combination which gives the pilot a pictorial (television) presentation of the airway segment or airport approach area which he is flying, with a line-drawing map and moving pips to mark his airplane and other traffic in the area (but only in the same 2000-foot altitude strip). The airplane must carry, in addition to the television receiver, a transponder to trigger the necessary ground combination of search radar and television camera and transmitter. Airborne equipment also includes a station selector switch to move the picture from one airway segment to the next, and a channel selector which is turned to the proper altitude level. The ground set-up includes a discriminator circuit to sort out responses according to the altitude of the interrogating plane.

It's a reasonably complicated business and if you really want to know all about it we suggest you get a hold of RCA's descriptive booklet, or, better still, stop in some time and fly the simulator. By avoiding consideration of costs and shortcomings which might be found at this stage of Teleran's development, we found it a very impressive demonstration and a conspicuous piece of progress on the industry's biggest problem.

Another navigation development, which has been a long time in the works, is about to be publicized beyond the small group of people who have been in on the development. Its significance lies in its immediate application to the CAA's omni-range and distance measuring system, rather than in any far-distant new scheme for navigation and traffic control.

The airborne device, developed by Minneapolis-Honeywell and known as the B-D Computer, picks up omni-directional and DME signals and presents them as instantaneously readable position data. Considerable testing has already been done at Indianapolis by the CAA and by airline and military observers.

Robinson Builds Own Airport

Robinson Airlines, regional carrier operating in New York state, is building its own airport at Ithaca with help of Cornell University at cost of \$200,000.

November 1, 1947

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Southwest Airways Testing 58-Pound Picture Radar

By FRED HUNTER

An airborne picture radar, which weighs only 58 lbs., has been developed by Donald K. Allison, Los Angeles engineer, and tests of the device now are being run on a Southwest Airways DC-3.

The inventor describes the unit as the first postwar radar wholly designed for commercial use. In addition to its light weight, it is simple to install and requires little modification of the plane. Its cost is approximately \$8,000.

In 30 hours of preliminary tests, Southwest Airways found the Allison radar fully effective as an anti-collision device. It plans a test program of three to four months to determine its stability and its efficiency as a navigational aid.

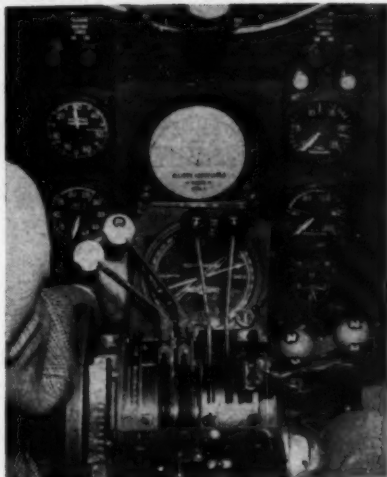
Flying the plane in test maneuvers in the Los Angeles area at night, J. W. Brown, chief pilot for Southwest Airways, reported the California shore line was outlined in perfect detail on the radar scope and that docks running out into the water, boats in the bay, even the relatively small metal buoys were picked up with perfect fidelity. In runs in mountain terrain, Brown was able to chart a safe pass between mountains without difficulty. He said the definitions produced on the scope were sharper and clearer than on the APS-10 installations he had used during the war.

May Supplant Ranges

Southwest is highly hopeful that the Allison radar may prove an efficient substitute for standard radio range stations, when used in combination with continuous wave beacons and it will place particular emphasis on this phase in its tests. Like other feederlines, Southwest is forced to limit operations to contact conditions at most points on its routes. By mounting the CW beacons at the end of a runway, the radar scope would supply a correct compass heading to the beacon. In addition, the radar screen would enable the pilot to check altitudes, wind drift and exact location of surrounding terrain and obstacles.

If the set proves out, Southwest expects to ask the Civil Aeronautics Administration to approve minimums of as low as 300 ft. and one mile at certain intermediate cities on its route where there are no range stations.

Allison said his 58-lb. radar had been "six years in the making," although actual construction on the



Close-up of Allison Radar Scope.

unit now being tested in Southwest's plane was started only six months ago. Formerly on the staff of M.I.T., Allison became active in electronics research and design as a member of the engineering staff of the National Defense Research Committee. Associated with him in the development of his post-war commercial radar are Aubrey Vose, James Westcott, Fred Suffield and Albert Palmes, engineers who participated in the development of APS-10.

Unlike other radar scopes, the center point of the Allison screen has been set near the bottom rim of the five-inch scope, thereby doubling the size of the image without a commensurate increase in scope size. It can be set for ranges of five, 15, 50 or 150 miles at the turn of a switch. Its only other controls are an on-and-off switch and a volume control knob. The unit develops 40 kilowatts of power as compared to eight kilowatts for the war-time APS-10's.

Aviation Maintenance Corp. engineers, who installed the first set in Southwest's DC-3, said the only modification of the airplane involved was the addition of channel brackets for support of the scanning unit and fabrication of a new nose-piece. The scanning unit in the nose is connected to the viewing screen in the pilot's cockpit by two 17-inch long cables. The lower half of the nose covering the scanner, is made of plexiglass with an interior sandblast treatment. The top half is conventional alclad skin. This alclad covering is easily removable to bare the mechanism housing of the set, thus providing accessibility for maintenance.

The scope is submerged in the center of the instrument panel and set at a 10-degree angle to afford better vision and to eliminate the necessity of a glare shield between it and other instruments.

Only the one scope is used in the Southwest installation. For larger planes with wider cockpits two screens can be installed at an additional eight pounds of weight.

The Allison Radar and Equipment Co. has been organized to manufacture the device after the tests are completed. Allison estimated the company would be able to start production not later than April.

W. E. Sievers, Los Angeles industrialist, who is chairman of the board of the new company, said that because of the current financial condition of the airlines, plans were being made to lease the units on six months contracts at \$500 a month.

"We realize that at \$8,000 to \$10,000 per unit installed a substantial investment would be entailed for an airline having 100 planes or so," said Sievers. "For that reason we contemplate leasing the sets on contract, which would also afford a tax advantage to the user."

Southwest Airways has an option to purchase the first 10 sets.

First Transcontinental Radar Airway in Operation Soon

The first transcontinental radar airway, consisting of a chain of 50 radar beacon stations, is to be put into operation in the near future as a joint Navy-AAF-Coast Guard project.

Extending down the East Coast, across the southern transcontinental ferry route and up the West Coast, the "Racon" airway will be utilized mainly by military aircraft, but will be available for commercial use. Its usefulness as a system of bad-weather navigation will be increased with the development of better airborne radar sets for commercial airliners. It is a system of short-range navigation enabling a pilot to determine exact location of his plane at all times.

L. A. FIDO Plans Delayed

Plans for installation of the FIDO fog-dispersing system at Los Angeles Airport in time for this winter's fog season have been abandoned because of changes in specifications, material shortages and the unavailability of a valve specified in the original design.

Woodruff De Silva, airport manager, said it is now anticipated the installation will not be completed before next summer or fall. He said it is planned to run some tests on valves at the Arcata Landings Aids Experiment Station, and that it probably will be the end of the year before revised specifications will be completed preparatory to asking for bids.

AMERICAN AVIATION

Action of Curious Pilot Blamed for Inverted Flying

Curiosity of a check pilot about the possible effect of engaging a DC-4 gust lock while in level flight resulted in the inverted-loop accident that occurred to an American Airlines plane in scheduled passenger service near El Paso, Tex., Oct. 8. Details of the incident were disclosed by CAB Oct. 17 in an official statement of facts indicating that the probable cause had been satisfactorily established and that no public hearing would be held.

According to the CAB report, there were three pilots aboard the plane the morning of Oct. 8 when it departed Dallas en route to Phoenix and Los Angeles. They were: Capt. Charles Sisto, who was in command and riding the jump seat acting as check pilot; Capt. John Beck, making a familiarization trip as an observer and actually flying the plane from the pilot's seat; and Capt. Melvin Logan, acting as co-pilot.

Disposing of preliminary statements that the automatic pilot had played a part in the accident, the Board attributed the accident to Capt. Sisto's action in engaging the gust lock, unbeknown to Beck and Logan, for the purpose of seeing what effect, if any, it would have on the control and attitude of the plane

from level flight. Capt. Beck attempted corrective measures, but the plane failed to respond properly. By the time he thought of the possibility of the gust lock being engaged and reached for the flettner control wheel to return the controls to normal position, Capt. Sisto had released the gust lock, still unbeknown to the other pilot.

This sent the plane pitching downward in a violent maneuver, dislodging passengers and baggage. Capt. Logan, who had his safety belt fastened and therefore retained his seat during the unexpected maneuver, finally righted the plane about 300 feet above the ground, and flew it back to El Paso, where the plane was landed safely.

The DC-4 received minor damage from the unusual strain and from the passengers striking the lining in the cabin. Capt. Sisto resigned shortly after the incident.

Maintenance, Inspection Criticized in EAL Accident

The Eastern Air Lines C-54 crash which killed 53 persons near Bainbridge, Md., last Memorial Day was attributable, in part, to faulty maintenance and inspection practices, according to a Senate Commerce subcommittee report prepared by Carl Dolan, staff consultant.

A preliminary report by the CAB

had said "some unit or assembly" failed in the plane's tail, and the subcommittee's report suggested that the suspected structural failure might have been avoided through proper inspection safeguards.

The report placed responsibility for alleged lax inspection with the manufacturer, the conversion contractor, company inspectors and the CAA inspector, and it recommended greater authority for inspectors and "fatigue limit" charts for certain structural parts. It conceded that the definite cause of the crash will "apparently never be determined."

'Lack of Vigilance' Blamed For EAL, Universal Collision

Probable cause of a mid-air collision between an Eastern Air Lines DC-4 and a DC-3 operated by Universal Air Lines was "lack of vigilance on the part of the pilots of both aircraft" according to Civil Aeronautics Board's official accident report. The collision occurred near Aberdeen, Md., last Dec. 19. Both planes received major damage but none of the 85 persons involved sustained more than minor injuries. Both aircraft were landed safely. Both were proceeding southward from Newark, N. J., along Airway Amber 7 at the same altitude. Weather played no part in the accident, CAB said.

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Grumman: G-21s

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Beechcraft: 18s, AT-11s, AT-7s
Boeing: 247Ds
Fairchild: PT-26s (New)
North American: Harvards—(AT-16)

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Proposal Requires Adequate Fire Protection at Airports

Assurance of adequate fire protection at all airports used in scheduled air carrier operations is the aim of a proposed amendment to Part 40 of the Civil Air Regulations now under consideration by the Civil Aeronautics Board.

Under this amendment, the Administrator would be required to prohibit the landing or take-off of scheduled air carrier aircraft where he finds that an airport does not have available ground fire fighting equipment and personnel adequate for the operations involved, except in cases where it is found an adequate program has been submitted and its implementation has not been unduly delayed.

Another proposed amendment would prohibit landing and take-off of scheduled air carrier aircraft at airports where a wind sock of a type approved by the Administrator has not been installed at each end of the runway or runways used by such aircraft, including illuminated wind socks at fields where night operations are permitted.

ATA Opposes Proposed Oxygen Requirements of Safety Bureau

Opposition to proposed amendments to the Civil Air Regulations governing oxygen requirements for crew and passengers on transport planes has been filed with the Safety Bureau of the Civil Aeronautics Board by Air Transport Association.

The Bureau's original proposal that oxygen should be provided for all passengers when an aircraft is flying above 10,000 feet had been modified, in the revised amendments, to substitute a 12,000-foot level.

ATA said experience had shown that less than 10% of airline passengers use oxygen under 14,000 feet, and its position is that this level should be the dividing line both for pressurized and for non-pressurized aircraft. ATA asked that any effective date on the proposed new regulations be set far enough forward so that, whatever amendments are finally adopted as to oxygen requirements, they will not include present DC-3 and Lockheed Lodestar aircraft.

New Charleston Airport

The new Kanawha County Airport at Charleston, W. Va., will be dedicated on Nov. 3. Under actual construction for three and one-half years, the project involved the moving of more than 9 million cubic yards of earth and rock, believed to be one of the largest airport excavation projects on record. Expenditures to date exceed \$6 million. Carved out of a hilltop, the airport has three runways, 5,000, 5,700 and 6,000 feet long.

Plastic Edge Improves DC-6 Control Surfaces

Substitution of a glass cloth laminate for the aluminum alloy previously used is claimed by the Douglas Aircraft Co. to have given greater impact strength to the thin trailing edge of metal ailerons and elevators of the DC-6 transports.

Consisting of three plies of glass cloth No. 181-A-14 impregnated with a fire resistant resin known as Selectron 5041, the new material has an initial cost approximately five times that of metal, but Douglas engineers say the greater strength and ease of repair gained by the new installation has more than justified the substitution.

Domestic Airline Daily Plane Utilization

	July	August
American		
2 eng. pass.	8:06	7:25
4 eng. pass.	7:42	7:16
cargo	3:43	3:30
Braniff		
2 eng. pass.	7:54	7:20
4 eng. pass.	7:19	7:24
Capital-PCA		
2 eng. pass.	7:57	8:11
4 eng. pass.	6:36	5:54
cargo	4:10	3:07
Caribbean		
2 eng. pass.	2:46	2:39
C & S		
2 eng. pass.	8:00	8:18
4 eng. pass.	7:36	7:30
Colonial		
2 eng. pass.	6:30	7:54
Continental		
2 eng. pass.	9:25	9:26
Delta		
2 eng. pass.	9:30	9:31
4 eng. pass.	6:35	6:44
cargo	—	2:41
Eastern		
2 eng. pass.	11:19	11:14
4 eng. pass.	8:16	8:01
cargo	1:51	4:10
Hawaiian		
2 eng. pass.	7:59	8:33
cargo	2:06	1:46
Inland		
2 eng. pass.	10:44	10:40
cargo	1:09	1:05
MCA		
2 eng. pass.	8:30	8:32
National		
2 eng. pass.	4:50	4:38
4 eng. pass.	8:08	8:22
Northeast		
2 eng. pass.	7:16	7:21
4 eng. pass.	3:56	3:21
Northwest		
2 eng. pass.	7:40	7:50
4 eng. pass.	11:32	10:31
TWA		
2 eng. pass.	11:05	11:18
4 eng. pass.	8:10	8:00
cargo	3:44	4:03
United		
2 eng. pass.	11:11	11:23
4 eng. pass.	7:33	7:19
cargo	6:41	6:39
Western		
2 eng. pass.	8:27	10:53
4 eng. pass.	7:18	7:18

SAFETY SLANTS

GIL TYLER, safety superintendent of Pan American's Atlantic Division, was elected general chairman of the National Safety Council's Air Transport Section at their meeting in Chicago on Oct. 8-9. Russ Holdren, safety supervisor of TWA's eastern region, was named vice-chairman; Ed Lee, Eastern's safety director, secretary; and Bob Potter, AA's safety supervisor at Tulsa, editor of "Air Transport Safety," the section's news letter.

A highlight of the sessions was the appearance of "Shorty" Schroeder, honorary life member and an old safety campaigner. "Shorty" is still far from being well but his old friends were glad to hear the note of confidence in his voice as he promised to be back pitching soon. "Shorty" told the meeting that he has a deal with a doctor friend to teach him to fly if the doc gets him back on his feet. Let's hope that the doctor learns to fly soon.

In a message to the meeting Congressman Carl Hinshaw pointed out that he felt that the government should provide safety facilities for airlines but that it should not be expected to provide means of maintaining schedule regularity. He feels that the cost of facilities for this purpose should be borne by the airlines.

E. L. Stephenson's report of an alleged insurance inspection of "Suicide Field" was both amusing and instructive. Maj. H. M. Sweeney, chief of the biophysics branch, Wright Field aero medical lab, gave an interesting talk on the medical aspects of explosive decompression and showed an Air Force training film on the subject. The Air Force experiments all involved healthy people who had passed medical tests and no symptoms more severe than a belly ache were observed.

The plans of the Port Authority to conduct fire training for its crash crew at LaGuardia were cancelled because of the proximity of the planned training site to Grand Central Parkway. It was feared that the sight of an old aircraft hulk in flames would tie up parkway traffic. Let's hope that a suitable location can be found for this much-needed activity. Perhaps a spot may be found at Idlewild.

Although hope for the revival of Republic's Rainbow transport project appears slim, fire protection engineers have not lost interest in the methyl bromide extinguisher system projected for it. The Rainbow was to have been the first commercial transport to use a methyl bromide system. The toxicity of methyl bromide is widely recognized and many airline engineers feared that it might introduce hazards both in use and maintenance. The fact remains that methyl bromide is used quite extensively as an insecticide. During the war thousands of PW's processed through the Port of New York had their clothes decontaminated with it. No untoward effects were reported.

November 1, 1947

G.E. Developing New Navigation System

A new approach to a system of all-weather navigation has been devised by Dr. Luis W. Alvarez and is now under development by General Electric Co's. electronics division at Syracuse.

Air Force, Navy and airline engineers have the system under study but airline technicians point out that actual operation may be from three to five years away.

It was devised by Dr. Alvarez to meet requirements outlined by the Air Transport Association for "an ideal system of navigation along the commercial airways" which would establish a series of parallel tracks between junction points which aircraft could follow with precision.

Dr. Alvarez said in his report that the system essentially "duplicates" the block system now used by the railroads, except that each aircraft would carry its block equipment rather than depend on a fixed ground installation. He said the airborne equipment proposed was simple compared with that required for Teleran, Navar and other systems.

Dr. Alvarez's system is known as "triple coincidence navigation" or "Tricon." The heart of the system is described as the "triple confidence" in aircraft receivers of pulses sent

out by a team of very high frequency ground stations consisting of a master and two slave transmitters which would be located every 60 miles or so along the airway.

The aircraft's position in the block is continually established and there are indications whether the block ahead is clear through controlled timing of the master station's transmissions and the movement of the slave station's impulses, plus electronic measurement in the aircraft receiver.

It is estimated that the position-fixing accuracy is so great that parallel flight tracks could be established two miles apart and that airplanes could follow each other close enough so that an airway with five tracks running in either direction could accommodate 200 planes flying at 300 mph. past any given point every minute.

Airline communications experts who have had an opportunity to examine Dr. Alvarez's presentation say the system is a new approach on paper to an old problem, that the principle is not new, but that it is technically sound and feasible. They point out, further, that the equipment does not exist, and that there is no estimate of the cost of equipment and necessary installations.

Dr. Alvarez won the Collier Trophy last year for his work in the development of Ground Controlled Approach.

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New Equipment

Direction Indicator

Production of the Model 2221 Auto-flight Direction Indicator similar to the Army B-20, has been resumed by G. M. Gianini & Co., Inc., of Pasadena, Calif., to meet airline requests for the instrument.

The direction indicator, in contrast to card-type compasses which allow a pilot to see only a few numbers, is operated by a spring-mounted magnetic float and gives constant readings regardless of rough air conditions, it is claimed. The entire mechanism including the dial and pointer, is submerged in compass fluid, which gives suitable damping action. The compass accuracy is protected against temperature and altitude changes by a bellows chamber in the lower part of the compass case.

The instrument has a 360-degree dial face to provide easy reading, and is equipped with course-lines so that the pilot can tell at a glance whether or not his ship is holding course.



CO-AX CONNECTORS



**AVAILABLE FOR
IMMEDIATE
DELIVERY**

We carry all popular standard and British type coaxial cable connectors in stock. These connectors are brand new and were produced for the Government by the leading manufacturers in this field. Our inventory contains sufficient quantities for the largest users at prices well below the market. Write or wire for special Coaxial Cable and Connector Listing 100A or send us your requirements.

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Wells maintains one of the world's largest inventories of highest quality radio-electronic components. Our new catalog, now ready, will be mailed upon request.

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**WELLS
SALES, INC.**

320 N. LA SALLE ST.
Dept. A, Chicago 10, Ill.

Elevated Marker Light

A day or night marker light designed to meet the needs of any class of airport has been announced by Westinghouse Electric Corp. A brightly colored cone quickly identifies the runway or strip in daytime, while the light at the top provides an elevated marker at night.

Five steps of brightness are available from 16 candlepower to 1,600 candlepower when a 30-watt series lamp is used and the circuit is controlled by a standard five-step brightness control regulator. The lens assembly is designed to give asymmetric light distribution, with the major portion of the light in line with the runway. Information on the light is available from Westinghouse, P. O. Box 868, Pittsburgh 30, Pa.

Right-Angle Actuator

An electrically operated right-angle actuator called the "Rotorac" is the latest addition to Airborne Accessories Corporation's line of elec-



tro-mechanical units for aircraft applications.

The actuator is intended for intermittent duty applications requiring low torque at reasonable speed for operation of screw-jacks, gears, sprockets or similar mechanisms. The right-angle takeoff permits an extremely compact installation and facilitates location of the equipment in "tight" spots and corners such as are frequently encountered in aircraft wings and control surfaces.

A folder describing the equipment fully may be obtained from the company at 25 Montgomery St., Hillside 5, N. J.

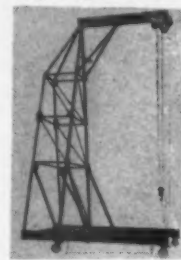
Non-Spill Battery

Development of a new non-spill 12-volt aircraft battery, now available in two standard sizes, has been announced by the Willard Storage Battery Co., of Cleveland, and has been approved by CAA for installation without enclosed battery boxes or compartments heretofore required on all civil aircraft.

The new battery, now in volume production and adopted as original equipment by a number of leading plane manufacturers, is made spill-proof by means of a patented vent manifold device and is protected against overfilling by an adaptation of Willard's automotive "Safety-Fill" principle.

Four-Ton Mobile Crane

A four-ton mobile crane for handling engines and other heavy items



has been added to the Airquipment line of service and overhaul equipment. With an overall height of 23 feet 11 inches, it has a chain hoist lift of 15 feet and in-and-out travel of three feet. The

base, measuring approximately nine by 13 feet, rests on heavy duty steel casters.

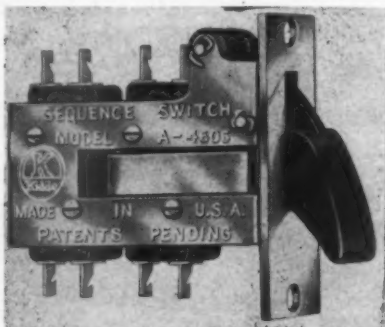
The crane, which is demountable for shipping in sections, is equipped with a tow bar and friction ground locks. Full information is obtainable from Airquipment Co., Dept. 4C, 2820 Ontario St., Burbank, Calif.

Aluminum, Metal Cleaner

A new type of aluminum and metal cleaner claimed to require 30% less labor than any other type on the market has been announced by The Heath Company, 150 Broadway, New York, exclusive distributors for the manufacturer, the George Basch Co. Known as NEVR-Dull Magic Wadding Polish, the new product is a chemically impregnated cotton wadding which comes already prepared for direct application to metal aircraft. It is approved by the Aluminum Company of America.

Automatic Sequence Switch

A new sequence switch which automatically sets aircraft direction valves to permit flow of extinguishing agents to the hazard area has



been developed by Walter Kidde & Co., Inc., of Belleville, N. J.

This sequence switch, according to the manufacturer, is a dual purpose control. By raising the guard, the electrical circuit is closed to the direction valve to the specified hazard area. The button is then pushed to release the extinguishing agent. Return of the guard to original position opens the direction valve circuit again.

AMERICAN AVIATION

* * * *

Plane Makers Need Volume Orders to Ease Difficulties

With operating deficits at an all-time high, with manufacturing costs more than double prewar levels, with working capital all but depleted and new capital virtually unobtainable, the aircraft manufacturing industry of this country will be hard pressed to stave off insolvency or bankruptcy unless it can book volume orders at prices that will yield a profit.

Such was the picture of the industry's present condition and future outlook as drawn for the President's Air Policy Commission by Ralph V. Hunt, vice president-comptroller, Douglas Aircraft Co.

It was not a bright picture. It told how the postwar collapse of the market for aircraft had resulted in 1945 operating income of \$325 millions for 15 aircraft companies giving way to an \$82 million operating deficit in 1946, with further substantial losses indicated for 1947. Tax carrybacks greatly reduced the 1946 losses, Hunt said, and will offset this year's deficit to a lesser extent, with no carrybacks thereafter to cushion the industry.

The Douglas official said the more than \$620 million in working capital with which the leading 15 aircraft manufacturers emerged at the end of 1945 declined by some \$80 millions last year, with operating losses and large property acquisitions as major contributing factors. Also, proportions of inventories and other non-cash items increased. Further operating losses this year, plus tax problems, cancellations of plane orders and other factors have brought most manufacturers to the brink of "severe financial difficulties," he pointed out.

DC-9 Costs Cited

Labor, material and overhead costs in the industry are more than double prewar levels, Hunt stated, and experimental, development and tooling costs now average 10 times prewar, due largely to advances in technology and the increasingly complicated character of postwar planes.

As an example, he said, the Douglas company estimates that to design and produce the first DC-9, new twin-engine plane the company has under consideration to replace the DC-3, would cost 15 times as much as the DC-1, original prototype of the Douglas transport series.

As compared with the DC-2, first production model of the company's commercial series, engineering and tooling for the first 100 DC-9 planes

Aircraft Manufacturing Interim
Operating Results
(First 6 Months 1947)

Company	Sales (000 omitted)	Income Before Taxes	Income After Tax Ad- justment
Beech**	\$22,386	\$4,366*	\$1,562*
Bell	8,882	736*	211*
Boeing	10,537	6*	64
Convair	14,091	2,478*	770*
Curtiss-Wright	38,687	5,908*	908*
Douglas	54,534	6,712*	752*
Grumman	N. A.	2,121	1,311
North American**	11,849	3,957	304
Republic	12,230	2,946*	476*
United Aircraft	97,330	5,492	3,417
Totals	\$270,526	\$19,496*	\$417

* Deficit

** For 9 months ended June.

N. A.—Not available.

Note: Above taken from Douglas exhibit submitted to President's Commission.

are estimated at 20 times more, and in comparison with similar costs on the first DC-3's are 14 times more. Adjusting for weight differences, the current engineering and tooling costs for the DC-9, he added, are more than 10 times the comparable DC-2 or DC-3 figures.

Such cost increases, causing depletion of war-time capital accumulations, have given rise to increased need for new capital and profits, he continued, but the condition of the industry is hardly such as to encourage the investing public to buy aircraft stocks or to attract any long-term financing.

"From the financial viewpoint, the basic requirement of the aircraft industry is a larger, more sustained volume of production at competitive prices which permit reasonable margins of profit," Hunt said, concluding:

"Without this single but important element of profitable volume, it is difficult to visualize any alternative other than that the industry will continue along its path of financial retrenchment, attempts at diversification and make-shift devices in an effort, possibly a futile one in many cases, to stave off insolvency or bankruptcy."

NWA Nets \$179,000 Profit.

Northwest Airlines' net income after taxes for the month of September was \$179,973, compared with \$565,793 in August and \$400,418 in September of last year. Net operating income for the month was \$326,162, and the profit before taxes was \$295,038.

New Firm to Handle Convair's Non-Aviation Activities

Complete separation of its aviation and non-aviation interests and formation of a new corporation to handle the latter will be major items of business at a meeting of Consolidated Vultee Aircraft Corp. stockholders scheduled for Nov. 6.

The new non-aviation corporation, which will succeed the Avco Manufacturing Co., will be known as The Nashville Corporation. It will consist primarily of Convair's general manufacturing plant at Nashville and Convair's 48% stock interest in ACF-Brill Motors Co. and its wholly-owned subsidiary, Hall-Scott Motor Car Co.

In connection with the changeover, resignations of nine Convair directors who are AVCO men are expected to be submitted at the meeting. Slated for election to the board are several men well known in the aviation industry, including: Floyd B. Odum, president of the Atlas Corporation; Ben O. Howard, director of Atlas' aviation division; William C. Rockefeller, manager of Alvin P. Adams & Associates, and Emmett A. McCabe, Atlas executive and wartime aide to Gen. H. H. ("Hap") Arnold.

The plan to be submitted to the meeting calls for authorization of 1,500,000 Nashville common shares, of which 820,834 would be delivered to Convair. The latter, in turn, would then issue to all of its stockholders, including Avco, rights to subscribe for the Nashville stock.

Capital Airlines Registers Second Monthly Profit for '47

Capital Airlines marked up its second monthly net profit and its fourth monthly operating profit for 1947 in September, with earnings of \$336,931. In May, the company had a net profit of \$41,698.

The September profit figure included \$220,210 in retroactive mail pay for the preceding six months, but it was pointed out that, even without this sum, the airline earned a net profit of \$116,721.47 for the month. The operating profit, prior to deductions for fixed charges, was \$440,813.88.

The September total operating revenue, highest thus far in 1947, was \$2,107,353, of which passenger revenue accounted for \$1,483,247. Total operating expenses for the month were \$1,666,539.84, as against \$1,723,711.96 in August.

'Oscar' for UAL Report

For what was judged to be the best annual report in the domestic airline industry, United Air Lines has been awarded *Financial World Magazine's* bronze "Oscar of Industry" trophy, which it had won previously in 1944.



"Why, then the world's mine oyster..."

"YES, MR. SHAKESPEARE, it's a small world by Speedbird! Today you could get to London—starting from Stratford, Connecticut—in less time than the 90-mile trip from Stratford-upon-Avon took you in the 16th century! And from London our Speedbird Routes connect 5 continents."



"REMEMBER THOSE LINES of yours, Mr. Shakespeare—"His years but young, but his experience old; his head unmellow'd, but his judgement ripe...?" How exactly they lend themselves to describing any BOAC pilot! You see, more than 100 Speedbird Captains have flown more than 1,000,000 miles apiece."

"NOW YOU'VE CROSSED the Atlantic with us, sir, why not travel by Speedbird just a little farther—to Bermuda? Visit 'the Bermoothes,' as you called them, those magic islands they say you made the setting for *The Tempest*. We fly there from Baltimore, three times every week."



See Shakespeare's birthplace and Anne Hathaway's cottage at STRATFORD-UPON-AVON. And don't miss the "Shakespeare Country," as lovely as it's legendary, on your Speedbird trip.

LONDON FROM NEW YORK OR MONTREAL

From New York via SHANNON, WED., THURS., FRI., SAT., SUN.: via GLASGOW, TUES.: Fare, \$325.00 One Way, \$586.70 Round Trip. From Montreal via GLASGOW, MON., WED.: Fare* \$332.00 One Way, \$561.60 Round Trip.

*Fares to Scotland or Ireland are less.

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Information and reservations also at most airline offices, or at BOAC, 420 Madison Avenue, New York 17, N. Y.

Routes to Australia, New Zealand and South Africa are operated by BOAC in association with Qantas Empire Airways, Tasman Empire Airways Limited and South African Airways respectively.

OVER THE ATLANTIC... AND ACROSS THE WORLD

SPEEDBIRD SERVICE

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BRITISH OVERSEAS AIRWAYS CORPORATION

Airlines Spending More Than Ever on Passenger Services

The nation's scheduled domestic airlines are spending more money on passenger service than ever before, in their efforts to continue their advance into the highly competitive travel market.

Passenger service, by airline accounting definition, covers not only the passenger department's pro rata share of numerous routine airline expenses, but also includes several categories of expense arising specifically from the effort to make passengers contented and happy.

In reports filed with the Civil Aeronautics Board, 18 carriers listed passenger service expenditures for the first six months of this year aggregating \$14,025,000, an increase of 19.6% over the \$11,726,000 expended for the same purposes in the first half of last year. A good part of this resulted, no doubt, from rising costs, but some of it was incurred in providing new services for passengers or improving upon existing ones.

These increases occurring at a time when the airlines generally were effecting economies wherever possible, and cutting expenses sharply in some departments, indicate that passenger welfare ranks high as ever in the thinking and planning of those engaged in air transportation.

Sixteen of the 19 carriers covered in this survey increased passenger service expenditures by amounts

ranging from 1% to 245% above similar outlays for the same period last year. Largest dollar increase was reported by United Air Lines, which upped its passenger service figure for the half-year by \$798,000 over the first six months of 1946. Largest increases percentagewise were those of Hawaiian Airlines, which boosted such expenditures from \$29,000 to \$100,000—245%—and Colonial, which increased by 106%, from \$66,000 to \$136,000.

Increase Per Passenger

And not only were total passenger service expenditures increased in comparison with the same period last year, but passenger service disbursements per passenger increased also, from \$2.25 to \$2.38.

Notable among the per passenger increases were those of: Colonial—from \$1.00 to \$2.35; Hawaiian—from \$0.27 to \$0.73; Northeast—from \$0.64 to \$1.33; National—\$2.20 to \$3.03, and Mid-Continent—\$1.33 to \$2.01.

The single item of passenger food expense, which included money expended for the meals, snacks, coffee, fruit juices and milk served gratis to airline passengers, accounted for expenditures of \$2.5 millions by the 18 carriers during the six-months period. Added to this should be the cost of pillows, blankets, paper cups, chewing gum, serving trays, plates, cutlery, etc.

Airline Passenger Service Expenses

Carrier	Total Expenditures (000 Omitted)		% of Increase Or Decrease	Per Passenger Expenditure	
	1st Half '47	1st Half '46		1st Half '47	1st Half '46
American	\$2,976	\$2,408	+ 23.5%	\$2.35	\$2.42
Braniff	436	401	+ 8.7%	1.69	1.78
Capital	679	691	— 1.7%	1.30	1.21
Caribbean	21	16	+ 31.0%	.63	.74
C & S	336	288	+ 16.6%	2.47	1.87
Colonial	136	26	+106.0%	2.35	1.00
Continental	156	160	— 2.5%	1.91	1.72
Delta	399	322	+ 23.9%	1.69	1.49
Eastern	1,546	1,267	+ 22.0%	1.88	1.92
Hawaiian	100	29	+245.0%	.73	.27
Inland	58	55	+ 5.4%	1.52	1.48
Mid-Continent	247	153	+ 61.5%	2.01	1.33
National	501	271	+ 84.9%	3.03	2.20
Northeast	204	106	+ 92.4%	1.33	.64
Northwest	711	704	+ 1.0%	2.31	2.70
TWA	1,867	1,978	— 5.6%	4.10	4.41
United	3,226	2,428	+ 32.9%	3.73	3.19
Western	426	383	+ 11.2%	1.89	1.91
Totals	\$14,025	\$11,726	+ 19.6%	\$2.38	\$2.25

November 1, 1947

Plane-Auto Service Now Available to NEA Passengers

As a special service to air travelers who need an automobile after reaching their destination, Northeast Airlines has put into operation a Plane-Auto Travel plan with the cooperation of Hertz Drive-Or-Self licensees in New England, New York City and Montreal.

The plan combines use of a Northeast transport for the long part of a trip, and a Hertz hired automobile for business or pleasure travel at the passenger's destination. It was worked out on paper three years ago but could not be implemented until now because of difficulties in obtaining delivery on a sufficient number of new automobiles.

The plan works as follows: Before boarding a Northeast plane, a passenger sends a telegram—cost up to 50c credited against rental—to the Hertz Drive-Or-Self station in the city of his destination; upon arrival he goes to the Hertz office for his automobile, which has been reserved in advance, presents his driver's license, signs a standard rental form and drives away.

Although rental rates vary, the usual rate for a Ford, Chevrolet, or Plymouth automobile from 8 a.m. to 6 p.m. is \$4.50 plus 6c a mile, with higher rates for Saturday and Sunday or for a 24-hour period. A supply of gasoline and oil and reliable insurance protection are included in the rental cost.

CAL Food Conservation Plan Saves 1,000 Meals Monthly

Continental Air Lines has reported good public acceptance of its new food conservation program, whereby it is saving an estimated 1,500 pounds of food per month through predetermination of the approximate number of meals to be required on each flight enroute at meal time.

Lynn Dennis, CAL director of flight service, estimated that approximately 90,000 meals per month could be saved if all the nation's scheduled airlines were to place a similar plan in operation.

Continental's procedure is for reservations personnel to contact all passengers several hours prior to flight departure time and ascertain the exact number of meals to be needed for any given flight. This saves upward of 1,000 meals a month, it is estimated, since the company has been taking an approximate 20% food loss due to passengers having eaten previous to flight time or having decided to wait until arrival at destination for their meal.

New Ad Agency for TWA

TWA has announced appointment of Batten, Barton, Durstine, and Osborn to handle its advertising account effective Dec. 1, 1947. For several years the account has been handled by Arthur Kudner, Inc.

PAA-U. S. Lines Agency Agreement Vetoed by CAB

On the ground that the two companies operate rival and competitive forms of transportation, Civil Aeronautics Board has disapproved the long-standing European general agency agreement between Pan American Airways and the United States Lines Co.

The Board said the agency agreement, which covered 10 of the 14 European countries Pan Am is certificated to serve, including such major points as London, Brussels and Paris, is "not in the public interest."

CAB said it was not persuaded by arguments that there was no real competition between U. S. Lines' surface vessels and PAA aircraft, inasmuch as each company "is seeking customers from the same market, i.e., persons having reasons to travel." Estimating that the agency developed some \$6 million of Pan Am's 1946 revenues, the Board concluded that the agreement "intrusts to an agent too great a share of the responsibility for the welfare of the air carrier and the development of air transportation."

A separate opinion issued simultaneously disapproved of the interlocking relationship resulting from the holding by John W. Hanes of positions as director and chairman of U. S. Lines, finance committee, plus directorships in Pan American Airways, Inc., and Pan American Airways Corp.

New Chicago Airline Terminal Opened by United, American

A new Chicago airline terminal at La Salle St. and Wacker Drive, devoted exclusively to handling passengers to and from the Municipal Airport, was opened Oct. 15 by United Air Lines and American Airlines. All previous United and American loop pickup and delivery coach service has been discontinued.

The new terminal has facilities on two levels, with flight information on the street level and a comfortable lounge and limousine boarding station below. Ticketing and reservations will continue at the loop ticket office of both airlines, and will not be available at the new terminal.

NEA Sales Staff Resigns

The three members of Northeast Airlines sales staff in New York, John F. Budd, Jr., Franklin D. Hunt, and Henry B. McNaughton, manager of sales, have all resigned. Budd said the environment in Northeast was "intolerable" and "strips from a man all dignity and self-respect," in a letter to the president of the Airlines Traffic Club of N. Y. The three resigned from the club, since none but outside salesmen for the scheduled airlines may be classed as active members.



Capital Display— Unusual window display attracting mass attention at the Airlines Terminal Annex, Pershing Square on East 42nd St., New York, is this exhibit built for Capital Airlines and featuring a moving inner table and an airplane that lands and takes off. The inner table has miniatures of cities on Capital's route and as it moves clockwise, the plane takes-off and lands at each city. A "Fly Capital" sign at the control tower lights up with each landing, and a flashing light indicates departure time. Numbers on outer strip indicate runway direction degrees at each city. Display was designed and built by Joseph E. Butler of Airtronic Research, Inc., Washington, D. C.

Braniff Extends Hotel Service to All Its Cities

Securing of hotel reservations for passengers over Braniff Airways' entire system became effective Oct. 15 as part of the company's regular plane reservation service. The new accommodation, first tested with Chicago-bound passengers, also applies to travelers transferring from other lines to Braniff flights.

By arrangement with 62 hotels, the airline requests rooms of the patron's choice in all Braniff served cities. The passenger requests his hotel space simultaneously with his airline space. Notified by company teletype, reservations office in the destination city contacts the hotel and confirmation is received within a matter of minutes.

Pioneer, TWA, Braniff Sell Space on Reciprocal Basis

Agreements providing for immediate confirmation of space on a reciprocal basis on certain connecting flights have been effected between Pioneer Air Lines, TWA, and Braniff.

The TWA-Pioneer arrangement involves the direct connection of Pioneer-flight 22 with TWA flight 51 westbound at Amarillo, Texas. The Pioneer-Braniff agreement involves connections between Pioneer's flight

34 and Braniff's flight 50 and between Pioneer's flight 32 and Braniff's north-bound flight 22 at Dallas. Each party to the agreements has the privilege of making automatic sales on each other's flights.

Ticketing & Reservations

Home Delivery: Anticipating biggest winter season in its history, Eastern Air Lines has made arrangement with Western Union whereby air travelers in Miami area may by-pass ticket counter lines and have tickets delivered to them. Passenger makes reservation with EAL by phone and requests delivery service. For nominal fee WU delivers ticket, collects money.

Interline Pacts: Interline agreements have recently been signed between Northwest Airlines and Eastern Air Lines; Air France and Chicago and Southern; United Air Lines and SABENA, Belgian airline . . . American Airlines is now represented in Central America by TACA, through agreement covering both passengers and cargo.

Offices: National Airlines has opened a ticket office at 37 Wall St., New York, only airline ticket office on the money lane . . . Downtown ticket offices of five major airlines in Los Angeles are now closed on Sundays and holidays. American, Pan American, TWA, United, and Western are participating in the agreement, which also sets ticket office hours at 8 a.m.-7 p.m. . . Linea Aeropostal Venezolana (LAV) has opened modernistic ticket and executive offices at 781 Fifth Ave., New York.

AMERICAN AVIATION

U. S. Domestic Airline Traffic for August

AIRLINES	REVENUE PASSENGERS	REVENUE PASSENGER MILES	AVAILABLE SEAT MILES	PASSENGER LOAD FACTOR	MAIL TON-MILES	EXPRESS TON-MILES	FREIGHT TON-MILES	TOTAL TON-MILES	AVAILABLE TON-MILES	% AVAILABLE TON-MILES USED	REVENUE PLANE-MILES	SCHEDULED MILES	% SCHEDULED MILES COMPLETED
All American	285,486	138,457,000	191,542,000	72.3%	3,718	3,033	838,361	14,960,461	25,217,778	10.1%	153,495	158,792	96.9%
American	54,635	18,456,000	28,282,000	65.3%	6,068	70,100	44,939	1,946,803	3,373,382	57.7%	961,476	959,794	99.7%
Branch	112,380	28,904,000	49,234,000	58.7%	40,481	135,332	138,016	3,075,970	6,037,422	50.9%	1,492,320	1,470,180	99.1%
Capital-PCA	5,969	375,000	795,000	47.2%	346	.....	582	31,075	72,571	42.8%	33,135	33,135	100.0%
Caribbean	26,499	10,361,000	17,717,000	58.6%	30,589	59,712	35,406	1,123,578	2,322,507	48.3%	645,133	642,730	99.8%
C & S	18,130	4,752,000	7,403,000	64.2%	6,164	8,699	.....	493,883	886,319	71.9%	371,779	360,654	97.3%
Colonial	18,752	6,886,000	10,473,000	65.0%	14,764	7,977	11,619	693,355	1,259,513	55.1%	507,645	505,920	99.4%
Continental	46,872	17,790,000	29,430,000	60.5%	58,413	56,876	87,698	1,909,938	3,924,016	48.7%	1,068,438	1,064,075	99.5%
Delta	146,814	66,617,000	129,811,000	51.3%	254,461	274,927	.....	16,534,915	16,534,915	100.0%	4,036,431	4,036,431	100.0%
Eastern	35,522	5,002,000	5,960,000	83.9%	2,610	11,388	52,609	470,549	707,806	66.5%	271,121	199,922	99.7%
Hawaiian	8,194	3,171,000	4,219,000	75.2%	9,304	6,277	3,760	330,844	459,256	72.0%	213,123	212,576	99.9%
Inland	27,849	8,312,000	13,534,000	61.4%	20,132	13,569	10,558	839,829	1,450,857	57.9%	659,609	659,432	99.9%
NCA	24,975	11,597,000	24,656,000	47.1%	31,017	35,095	22,432	2,479,046	3,479,046	71.0%	695,355	697,438	99.4%
National	38,092	7,508,000	12,736,000	58.9%	7,715	12,215	5,822	741,480	1,164,027	63.7%	415,303	469,890	87.4%
Northeast	68,801	38,219,000	46,701,000	81.8%	173,478	136,895	48,417	4,000,708	6,011,371	66.6%	1,488,876	1,453,249	99.8%
Northwest	113,034	85,240,000	121,458,000	70.2%	539,784	439,647	324,816	9,488,500	15,179,704	62.5%	4,507,159	4,383,997	99.2%
TWA	216,669	134,302,000	170,091,000	78.9%	633,089	553,057	740,927	14,813,144	24,432,766	60.6%	5,845,524	5,861,844	99.2%
United	43,801	19,670,000	26,957,000	72.7%	56,452	35,239	36,894	2,062,300	3,170,568	65.1%	727,152	718,011	99.6%
Western	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTALS	1,294,474	605,639,000	890,979,000	67.9%	2,489,950	2,290,794	2,402,856	58,259,004	115,521,108	58.9%	29,341,122	29,099,369	99.1%

* Not reported

U. S. Domestic Airline Revenues-Expenses for August

AIRLINES	TOTAL OPERATING REVENUES	PASSENGER REVENUES	MAIL REVENUES	EXPRESS REVENUES	FREIGHT REVENUES	EXCESS BAGGAGE REVENUES	NON-SCHEDULED TRANSPORT REV.	TOTAL OPERATING EXPENSES	AIRCRAFT OPERATING EXPENSES	GROUNDS & INDIRECT EXPENSES	NET OPERATING INCOME
All American	\$ 73,036	\$ 71,790	\$ 1,266	\$ 187,939	\$ 90,009	\$ 16,271	\$ 6,796,042	\$ 2,951,797	\$ 2,951,797	\$ 19,899	\$ 879,149
American	7,675,190	6,962,136	242,989	150,323	7,361	8,645	5,795	1,054,908	813,177	24,721	25,645
Branch	1,029,262	941,238	26,416	47,345	35,141	7,410	549	1,730,462	1,730,462	9,836	9,836
Capital-PCA	1,740,298	1,422,781	217,807	5,974	.....	1,295	.....	48,373	20,952	27,421	-5,570
Caribbean	42,803	34,639	5,974	.....	1,295	.....	.....	48,373	20,952	27,421	-5,570
C & S	636,638	519,411	77,871	22,659	8,601	6,877	.....	629,637	273,418	356,219	7,001
Colonial	361,069	289,294	62,920	5,238	.....	2,644	817	326,170	150,407	175,763	34,899
Continental	428,653	357,854	53,366	3,347	2,723	3,497	.....	394,781	170,406	224,375	33,872
Delta	966,601	900,473	35,028	21,766	18,589	8,662	.....	974,615	462,180	512,435	11,986
Eastern	3,949,470	3,594,378	114,007	107,973	41,860	54,518	793	4,157,896	2,207,276	1,950,620	-208,425
Hawaiian	367,028	311,611	1,566	9,125	25,518	10,792	8,334	269,155	112,405	156,750	97,873
Inland	225,053	169,430	51,347	1,600	766	1,373	.....	181,906	88,916	92,990	43,157
NCA	562,379	466,951	82,850	5,994	2,934	3,223	.....	339,626	54,374	145,389	222,753
National	701,150	650,769	18,611	9,960	4,873	13,534	.....	661,185	428,175	433,010	-159,835
Northeast	520,260	449,696	57,057	6,728	1,739	2,017	1,075	486,525	224,729	261,796	33,735
Northwest	2,133,740	1,914,770	103,420	54,299	10,176	17,727	3,502	1,365,295	607,134	758,161	748,445
TWA	4,889,009	4,355,402	239,906	155,812	67,412	46,311	13,594	4,861,086	2,137,189	2,723,897	27,923
United	7,375,323	6,642,669	282,183	222,502	142,753	64,228	5,896	6,307,021	2,751,445	3,555,576	1,068,302
Western	1,178,883	1,032,953	86,900	10,000	7,685	7,943	11,804	955,842	412,624	543,218	232,041
TOTALS	34,876,055	31,016,455	1,843,608	862,423	567,365	349,652	68,130	31,833,460	14,430,869	17,262,728	3,022,598

* Includes a credit of \$199,863 resulting from adjustment of depreciation expense previously reported for the seven months ended July 31, 1947.
NOTE: These figures are taken from monthly reports filed by the airlines with CAB. The data are tentative and subject to later change.

U. S. Feederline Traffic for August

AIRLINES	REVENUE PASSENGERS	REVENUE PASSENGER MILES	AVAILABLE SEAT MILES	PASSENGER LOAD FACTOR	MAIL TON-MILES	EXPRESS TON-MILES	FREIGHT TON-MILES	TOTAL TON-MILES	AVAILABLE TON-MILES	% AVAILABLE TON-MILES USED	REVENUE PLANE-MILES	SCHEDULED MILES	% SCHEDULED MILES COMPLETED
Challenger	2,136	565,000	2,013,000	28.1%	2,446	1,505	169	60,778	213,902	28.4%	95,856	97,030	98.8%
Empire	1,468	304,000	840,000	36.2%	1,477	448	.....	27,172	66,239	41.0%	82,592	83,570	98.7%
Florida	639	81,000	558,000	14.5%	749	167	.....	7,245	61,025	11.8%	69,743	70,060	99.6%
Monarch	2,544	590,000	2,223,000	26.5%	1,601	1,246	5,253	67,488	197,959	37.9%	125,705	135,204	92.9%
Pioneer	6,472	1,703,000	5,367,000	31.7%	3,132	2,001	289	1,551,124	438,858	35.4%	220,085	221,612	99.3%
Southwest	11,302	2,081,000	4,015,000	51.8%	3,029	4,272	907	217,072	399,443	54.4%	193,465	191,307	99.0%
West Coast	7,224	875,000	1,932,000	45.3%	790	676	.....	78,969	192,514	41.0%	89,029	91,008	97.8%
TOTALS	31,785	6,199,000	16,948,000	36.5%	12,824	10,315	6,618	613,848	1,569,940	39.1%	876,385	889,791	98.0%

Note: Tabulations on this page and the next were compiled by American Aviation Publications from monthly reports filed by the carriers with the Civil Aeronautics Board.

November 1, 1947

U. S. Domestic Airline Revenues-Expenses for July

AIRLINES	TOTAL OPERATING REVENUES	PASSENGER REVENUES	MAIL REVENUES	EXPRESS REVENUES	FREIGHT REVENUES	EXCESS BAGGAGE REVENUES	NON-SCHEDULED TRANSPORT REV.	TOTAL OPERATING EXPENSES	AIRCRAFT OPERATING EXPENSES	GROUND & INDIRECT EXPENSES	NET OPERATING INCOME
All American	\$ 75,696	\$	\$ 74,181	\$ 1,550	\$	\$	\$	\$ 90,549	\$ 49,395	\$ 41,154	\$ -14,853
American	6,914,385	6,200,768	251,354	157,134	193,309	67,094	31,497	6,700,576	2,901,989	3,798,587	213,808
Braniff	953,742	864,878	36,998	25,092	8,675	7,775	10,095	1,046,367	487,204	559,163	-92,625
Capital-PCA	1,582,974	1,240,971	209,138	51,335	49,498	6,465	586	1,790,379	818,920	971,459	-207,405
Caribbean	41,377	32,902	6,134	. . . .	1,057	252	600	46,875	20,851	26,024	-5,498
C & S	602,349	484,753	79,505	17,085	9,863	4,049	1,702	651,236	277,697	373,539	-48,886
Colonial	305,736	238,978	61,023	3,287	2,333	2,333	. . . .	361,682	178,644	183,041	-55,945
Continental	362,778	296,631	53,274	5,593	2,675	2,908	52	371,809	155,803	216,006	-9,031
Delta	882,504	814,274	32,763	14,037	12,353	7,772	232	988,388	460,480	527,908	-105,884
Eastern	3,487,818	3,144,898	121,999	113,286	35,574	42,569	868	3,929,806	1,996,199	1,943,607	-451,988
Hawaiian	336,036	269,500	1,580	7,461	32,485	8,132	16,910	272,764	115,245	157,519	63,273
Inland	221,437	165,750	50,779	1,685	968	1,450	. . . .	168,260	83,686	84,574	53,177
MCA	519,836	424,508	82,754	5,316	2,197	3,495	1,526	516,054	228,658	287,396	3,782
National	609,763	558,375	18,917	7,009	3,794	12,143	3,642	893,957	437,216	456,741	-284,194
Northeast	451,734	374,162	55,824	5,155	1,507	1,682	. . . .	514,059	243,319	270,740	-62,325
Northwest	1,951,302	1,771,524	101,997	44,247	14,854	14,497	1,957	1,868,889	853,878	1,015,011	82,413
TWA	4,369,751	3,815,661	254,763	165,989	75,960	42,890	3,421	4,525,356	1,854,330	2,641,026	-155,606
United	6,605,230	5,906,304	297,858	208,712	147,643	60,367	. . . .	6,432,798	2,759,099	3,673,699	172,432
Western	1,077,257	927,019	83,480	9,000	8,301	6,842	10,047	954,849	434,760	520,089	122,408
TOTALS	31,351,705	27,531,856	1,873,541	840,973	600,713	292,875	83,135	32,134,653	14,387,370	17,747,283	-762,947

NOTE: These figures are taken from monthly reports filed by the airlines with CAB. The data are tentative and subject to later change.

U. S. International Airline Revenues-Expenses for July

AIRLINES	TOTAL OPERATING REVENUES	PASSENGER REVENUES	U. S. MAIL REVENUES	FOREIGN MAIL REVENUES	EXPRESS REVENUES	FREIGHT REVENUES	EXCESS BAGGAGE REVENUES	NON-SCHEDULED TRANSPORT REV.	TOTAL OPERATING EXPENSES	AIRCRAFT OPERATING EXPENSES	GROUND & INDIRECT EXPENSES	NET OPERATING INCOME
American	\$ 308,019	\$ 245,772	\$ 4,027	\$ 3,083	\$	\$ 36,632	\$ 6,391	\$	\$ 325,999	\$ 163,901	\$ 162,098	\$ -17,980
Amer. O'Shea	2,520,008	2,222,079	114,090	32,900	69,453	. . . .	37,491	. . . .	2,358,613	1,167,986	1,190,627	161,394
C & S	78,625	37,759	39,696	. . . .	. . . .	533	618	. . . .	87,790	37,755	50,035	-9,165
Eastern	68,211	62,918	1,012	. . . .	. . . .	3,435	847	. . . .	92,923	51,681	41,242	-25,712
National	56,833	51,083	281	. . . .	3,564	. . . .	1,906	. . . .	71,838	25,085	46,753	-15,005
Northwest	635,004	271,053	226,305	. . . .	1,892	8,261	1,975	135,872	525,075	270,203	255,672	109,129
Pan American	5,193,086	3,798,466	177,351	164,201	640,200	. . . .	167,255	214,166	4,843,872	2,148,492	2,695,380	349,214
Latin Amer.	3,470,442	2,662,416	362,052	122,771	272,420	. . . .	46,912	6,655	2,962,934	1,378,555	1,604,379	487,909
Atlantic	2,591,509	1,209,370	1,240,580	22,577	186,963	. . . .	15,325	. . . .	2,174,121	1,246,068	928,053	417,388
Pacific	630,860	379,185	219,620	. . . .	26,715	. . . .	4,391	96	523,541	273,164	250,377	107,319
Alaska	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
TWA	2,964,724	2,272,435	158,432	197,660	240,643	. . . .	72,216	12,532	2,905,360	1,229,783	1,675,577	79,364
United	331,047	309,285	11,106	. . . .	6,269	. . . .	4,393	. . . .	343,637	118,398	125,239	87,430
TOTALS	18,868,388	13,521,821	2,554,552	543,192	1,446,119	48,861	359,920	369,321	17,136,503	8,111,071	9,025,432	1,730,885

NOTE: These figures are taken from monthly reports filed by the airlines with CAB. The data are tentative and subject to later change.

Summary of Feederline Traffic for July

AIRLINES	REVENUE PASSENGERS	REVENUE PASSENGER MILES	AVAILABLE SEAT MILES	PASSENGER LOAD FACTOR	MAIL TON-MILES	EXPRESS TON-MILES	FREIGHT TON-MILES	TOTAL TON-MILES	REV. TRAFFIC TON-MILES	AVAILABLE TON-MILES FLOWN	% AVAILABLE TON-MILES USED	REVENUE PLANE-MILES	SCHEDULED MILES	% SCHEDULED MILES COMPLETED
Challenger	1,387	348,000	1,646,000	21.1%	2,154	845	85	37,889	174,860	21.7%	78,360	86,758	90.3%	
Empire	1,617	335,000	840,000	39.9%	1,740	746	. . . .	31,119	67,277	46.7%	83,795	85,083	97.6%	
Florida	501	62,000	504,000	12.7%	360	234	. . . .	5,739	167,609	3.4%	62,999	70,060	89.9%	
Monarch	1,745	384,000	1,928,000	19.9%	1,511	838	6,598	47,503	179,643	26.4%	115,570	116,436	99.3%	
Pioneer	5,858	1,568,000	5,018,000	31.3%	3,139	1,782	. . . .	142,782	426,315	33.9%	208,761	209,746	99.5%	
Southwest	10,361	1,865,000	3,961,000	47.1%	3,062	3,770	380	194,447	397,220	48.9%	191,623	198,432	96.3%	
West Coast	5,026	575,000	1,483,000	38.8%	607	649	. . . .	51,678	147,345	35.1%	69,160	71,356	96.7%	
TOTALS	26,445	5,137,000	15,380,000	33.4%	12,593	8,872	7,063	511,157	1,560,269	32.7%	810,268	838,671	96.6%	

Advertisers In This Issue

Advertiser	Page
AirResearch Mfg. Co. (Div. of The Garrett Corp.)	22
Air Industries, Inc.	25
Frank Ambrose Aviation Co.	29
American Airlines, Inc.	10, 37
American Gas Accumulator Co.	28
The Babb Co., Inc.	27
Beech Aircraft Corporation	12
Thomas B. Bourne Associates, Inc.	37
British Overseas Airways Corp.	32
Curtiss-Wright Corp. (Propeller Division)	Third Cover
Delta Air Lines, Inc.	7
Dinkler Hotels	38
Drew, Peters, Passen & McDonald	29
Flightex Fabrics, Inc.	37
Goodyear Tire & Rubber Co. (Aviation Products Div.)	3
T. G. Henning Co.	25
Luttrell & Senior, Inc.	9
Scandinavian Airlines System	5
Sperry Gyroscope Company, Inc.	Second Cover
The Texas Company	Fourth Cover
United Air Lines	28
Wells Sales, Inc.	30

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These inventories are available for inspection at our warehouses at Astoria, L. I., New York, Tulsa, Oklahoma and Fort Worth, Texas, and offered F.O.B. these points for domestic shipment at very attractive prices.

Prompt attention will be given to all requests for quotations directed to the attention of the Superintendent of Stores at the above address.

Classified Advertising

The rates for advertising in this section are as follows: "Help Wanted," "Positions Wanted," "Aircraft Wanted or For Sale," and all other classifications \$1.00 a line, minimum charge \$4.00. Estimate bold face heads 30 letters and spaces per line; light body face 40 per line; box numbers add two lines. Terms, cash with order. Forms close 20 days preceding publication date. Rates for display advertisements upon request. Address all correspondence to Classified Advertising Department, AMERICAN AVIATION PUBLICATIONS, 1317 F Street N. W., Washington 4, D. C.

HELP WANTED

PASSENGER SERVICE MANAGER
Airline work in South America. Must be experienced, and able to direct and coordinate complete program including ground service, catering and provisioning, service aloft, etc. Some knowledge Spanish essential. Salary dependent upon qualifications, reply Box No. 589, American Aviation, 1317 F St., N. W., Washington 4, D. C.

BUSINESS OPPORTUNITIES

Dick Powell's national Flight System—A few select distributorships available for live wire able to manage own business backed by National organization. Must be financially capable, qualified to hire and train salesmen and conduct advertising campaigns. Exceptional profits. Sale of planes and equipment not involved. \$5,000-\$10,000 required. Write to 6331 Hollywood Blvd., Hollywood, California.

EQUIPMENT WANTED

Wanted: Two (2) Lodestars, preferably equipped passenger transport. State hours, general condition and lowest cash price. Box No. 588, American Aviation, 1317 F St., N. W., Washington 4, D. C.

POSITIONS WANTED

Personable young man with eight years of airlines experience desires position managing passenger relations department specializing in passenger claims. Box No. 587, American Aviation, 1317 F St., N. W., Washington 4, D. C.

Air, Rail Press Analysis

Evaluation of the type of treatment given the airlines by major newspapers is being published monthly in a "Press Analysis of Railroads and Airlines," prepared by James S. Twohey Associates, 118 C Street NW., Washington, D. C. The service covers particularly the amount of coverage, degree of display, and general publicity value of all stories pertaining to air transportation. July and August reports for railroads and airlines show that the airlines have a generally better standing with newspapers.

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Wings of Yesterday

25 Years Ago

A temporary draft of a national air policy was drawn up by the National Advisory Committee for Aeronautics at its eighth annual meeting held at Langley Field, Oct. 19, 1922.

The keel of the U. S. Naval airship ZR3, which was built by Germany as a reparation ship for Zeppelins destroyed after the Armistice, was laid on Nov. 7, 1922 at the Zeppelin factory in Friedrichshafen, Germany.

The Pioneer Instrument Co. purchased the entire aircraft instrument business of the Lawrence Sperry Aircraft Co.

The first flight of the 1922-23 season between Key West and Havana was made Nov. 8, 1922 by the Aeromarine flying boat Santa Maria. Eleven passengers were carried on the initial flight.

10 Years Ago

(IN AMERICAN AVIATION)

On Oct. 21, 1937, Pan American Airways marked the first anniversary of its trans-Pacific revenue passenger service. (Nov. 1, 1937)

The Bureau of Air Commerce reported that as of Aug. 1, 1937, there were 7,782 licensed civil aircraft in the U. S. manufactured by 110 companies. Waco Aircraft Co. topped all other manufacturers with a total of 1,050 licensed planes. Curtiss-Wright second with 967. (Nov. 1, 1937)

The revenue passenger miles figure of the 16 airlines reporting to the ATA hit an all-time high in September, 1937, when the total soared to 47,150,616. This was a gain of 21.1% over the 38,932,000 reported for September of the previous year. (Nov. 1, 1937)

Letters

Airships for Luxury

To the Editor:

Your very interesting editorial "Trends Abroad" in your Sept. 1 edition labelling flying the Atlantic (by airplane) as "not luxury first-class transportation," whether unintentionally or otherwise, unmistakably points the finger at the airship as the vehicle which can supply the "luxury first-class transportation" which as you state, the airlines undoubtedly had once thought would be supplied by the fast airplane. Your very timely comments plus other factors currently coming to light make it inevitable that the airship should receive the earliest attention of all interested in the aeronautical supremacy of the United States.

C. E. ROSENDAHL
Toms River, New Jersey

Fair Treatment

To the Editor:

Just a note to tell you how much I appreciate the sympathetic understanding airfreight and its problems is receiving from American Aviation and particularly to express our pleasure at the very excellent story appearing recently under the pen of Keith Saunders.

I am sure that everyone in the air transport industry is realizing by this time the importance and the very serious place that will be taken by the entire airfreight field in the aviation picture of the country and that you are as anxious as we to see that the story is told completely so that everyone will know it as well, eventually, as do we.

EARL F. SLICK, President,
Slick Airways, Inc.

Mail Pay Scandal

To the Editor:

Sincere congratulations, on the splendid article of yours, "The Mail Pay Scandal" in your issue of Oct. 1.

Your editorials are always good and I think this is one of your very best, most timely and effective.

ARTHUR I. BOREMAN,
President,
National Aeronautic Association.

To the Editor:

I have just read your editorial entitled, "The Mail Pay Scandal," in the Oct. 1 issue of American Aviation and wish to congratulate you on a most interesting and forceful piece of writing. What can our government be thinking of to allow our so vitally needed aviation industry to die on the stem in these troubled times. More power to your pen!

RICHARD H. DEPEW, JR.
Frank Ambrose Aviation Co.,
Flushing, New York.

Books

TECHNICAL AERODYNAMICS. By Karl D. Wood. McGraw-Hill Book Co., Inc., N. Y. C. 466 pp. \$5.50.

This is the second edition of this title, the first having been published 12 years ago, and because of the many important developments in this field over the past decade, this edition resembles its predecessor only in the chapter headings and topics covered.

An advanced textbook, it is intended for use by students who have completed four 16-week terms of college instruction in engineering and who have a good background in physics and mathematics, including at least one course in calculus.

The author, who is professor of aeronautical engineering at the University of Colorado, says the purpose of this text is to enable the student to use published technical information on aircraft components to calculate the performance and stability of airplanes and helicopters. It is intended to supply material for two three-credit courses of about 45 lessons each.

Booklets

The second annual edition of the "International Air Traveler's Guide," published by American Airlines as a service to prospective trans-Atlantic air passengers, is now being distributed. "Overseas—overnight" is the theme of this 32-page booklet, which points out how air travel has made the world "home territory" for business executives and how savings in salary hours add up to a real factor in figuring true business travel cost. It shows how air travel makes it possible for business firms to capitalize on new world trade opportunities, to adopt new business strategies never before possible, and to keep in closer personal touch with interests and markets abroad. It shows, too, by quoting actual fares, that the cost of air travel to Europe is far less expensive than first-class steamship fare, when tips and miscellaneous expenses are counted in.

This guide is chockfull of information on current conditions in Europe. It tells about the food and drink situation—and prices—about surface transportation on the Continent, about hotel service and rates, about customs requirements of the various countries, about the rates of currency exchange, about goods available for purchase in shops, and about points of interest to be seen.

Copies may be obtained from American Airlines, 100 East 42d St., New York 17, N. Y., or may be requested through any American Airlines ticket office.

An illustrated booklet just released by the Civil Aeronautics Administration explains CAA's aircraft fire protection and fire prevention program, its purposes and methods, and the test facilities used. Issued under the name of Technical Development Report No. 54, the booklet was prepared by H. L. Hansberry, of the Aircraft Development Division, Technical Development Service, CAA. Copies are available at no charge from CAA Information and Statistics Section.

American Road Builders' Association, 1319 F Street NW, Washington, D. C., has published a 40-page "Directory of State Aviation Officials, and Officials of Civil Aeronautics Administration Concerned with Airport Development." Ask for Bulletin No. 125.

"Career Opportunities in Aviation," a handbook of vocational information, is available from the National Council of Technical Schools, 839 17th Street NW, Washington, D. C., for 15c. Occupations in various branches of aviation are described, along with requirements for probable success in each field.

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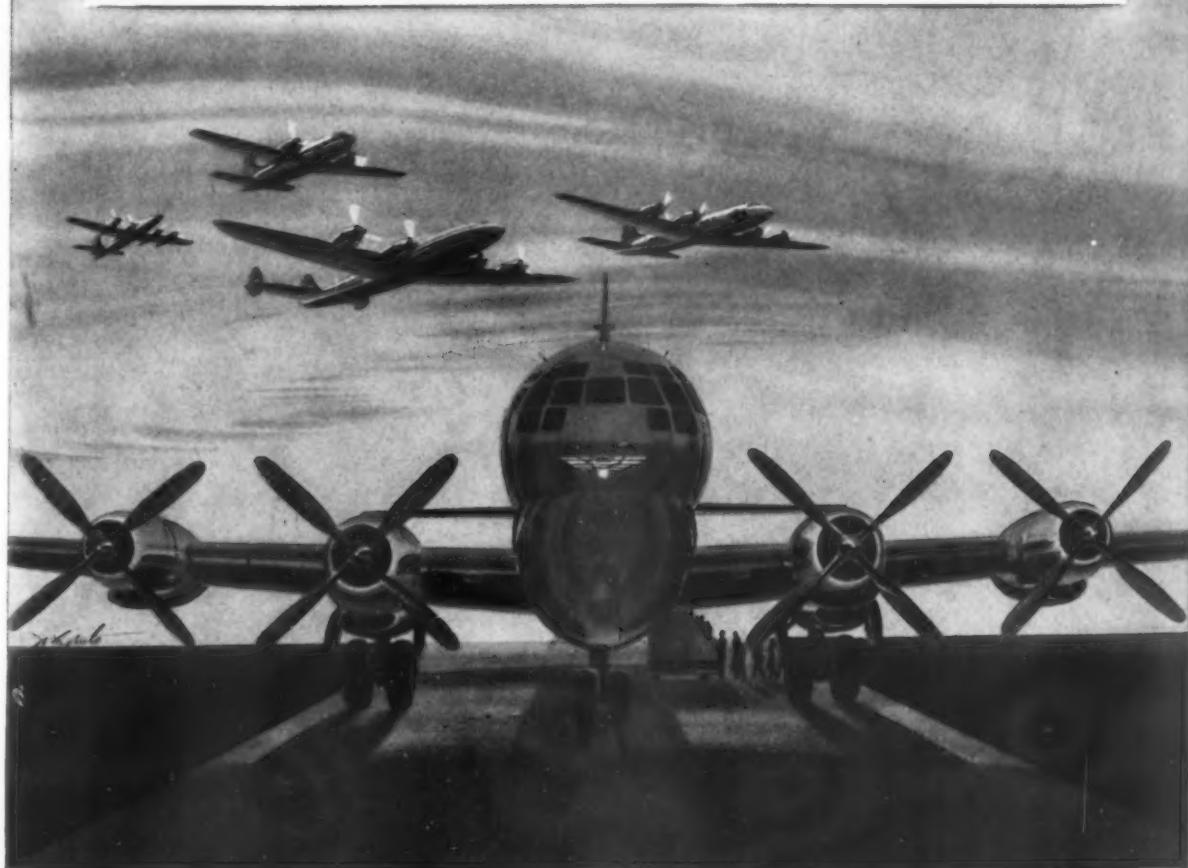
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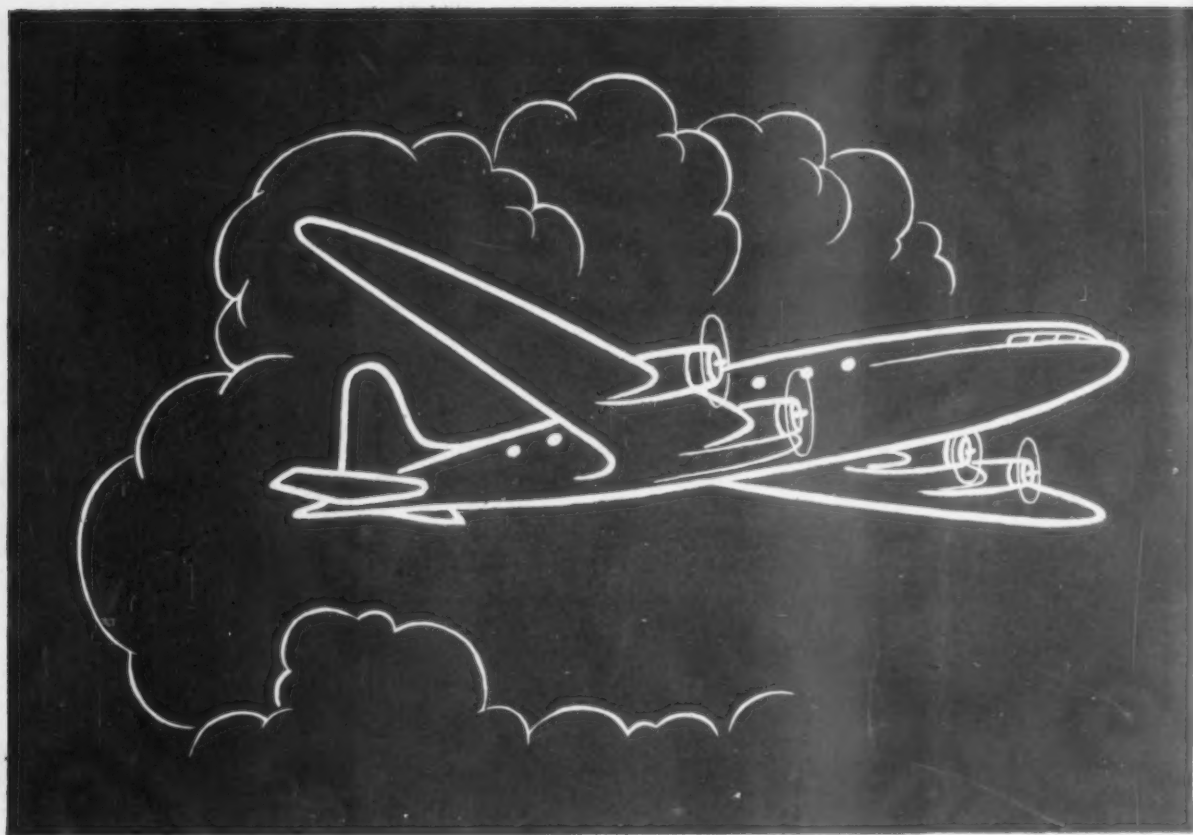
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TUNE IN . . . TEXACO STAR THEATRE presents the TONY MARTIN SHOW every Sunday night. • See newspaper for time and station.